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APRIL 19, 1947
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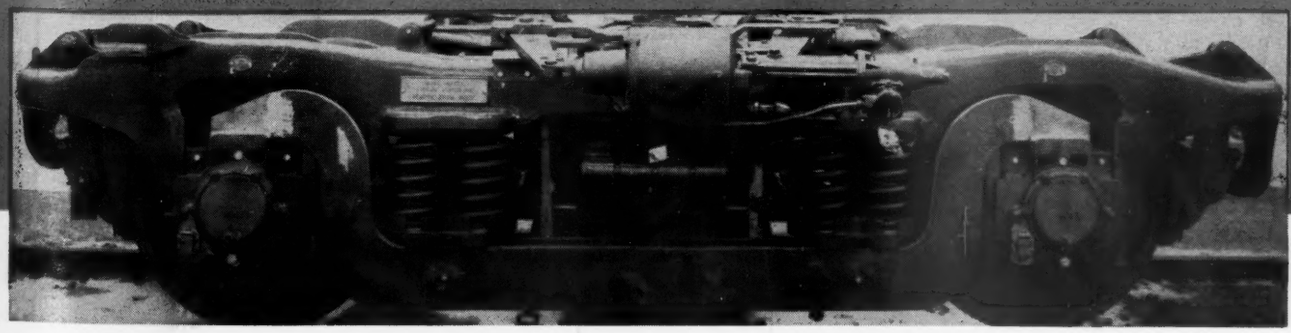

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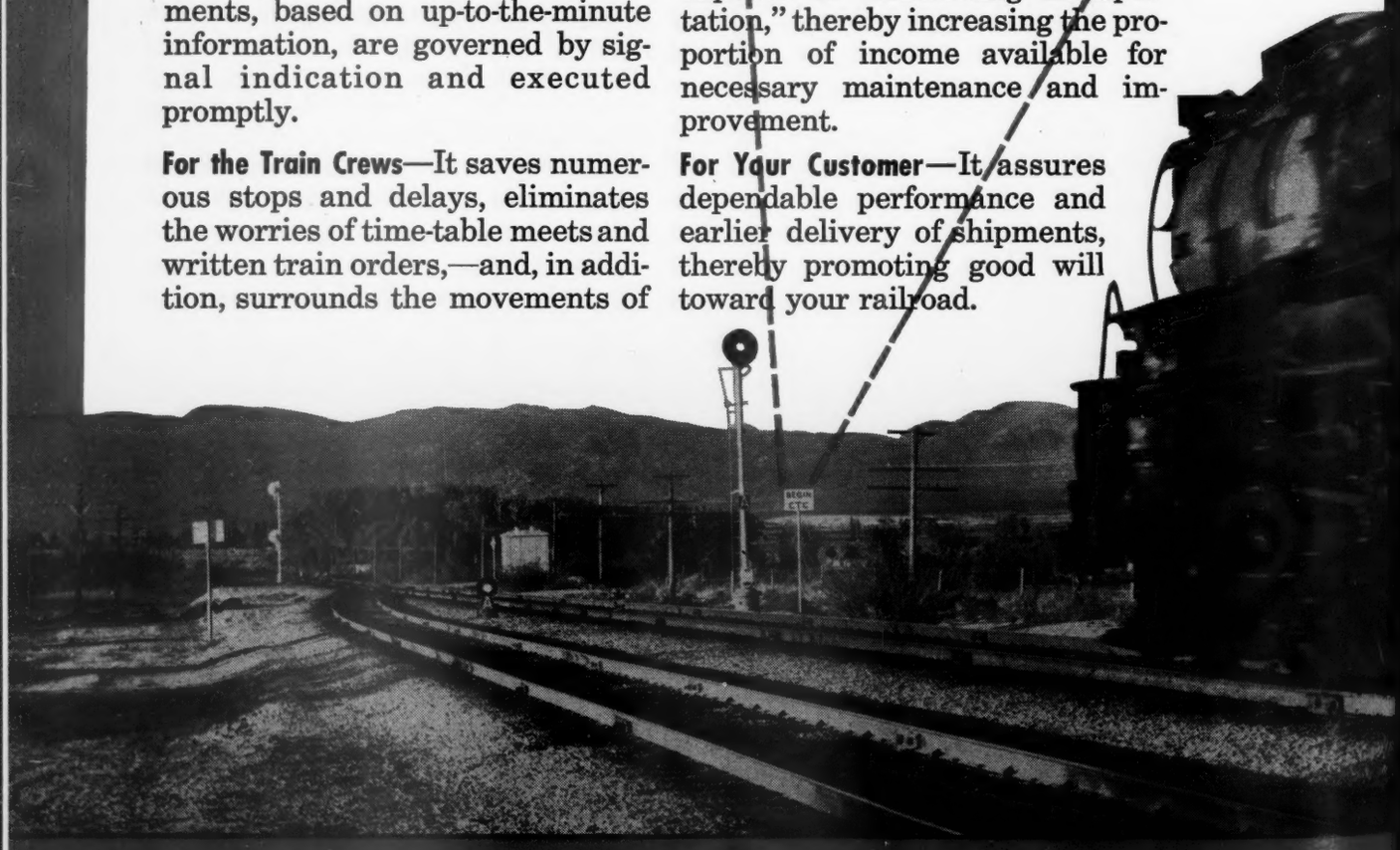

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RAILWAY AGE

Railroad Service May Have to Be Subsidized

The Chicago Daily News has advanced a novel argument in favor of subsidies to air transportation, namely, that "it is mass transporation for the public, and not the air lines as such, that is being subsidized." Instead of affording a valid excuse for subsidies, this charactertistic which the News points out is the very factor which makes them most objectionable. If the air lines were pocketing all these subsidies and were not passing them on in part to the public in fares lower than would otherwise be possible, air transportation would be priced at a figure reflecting more nearly than it does the actual cost of flying. Thus, traffic would not be artificially diverted to the air from surface carriers which operate at less cost. The enrichment of the air lines at the taxpayers' expense would be objectionable on ethical grounds, if they held on to these subsidies instead of passing them on in lower fares, but the subsidies under such conditions would create no artificial and wasteful distortion of the structure of comparative prices; and would not, as they now do, operate to reduce national wealth and income.

Subsidies Are Not "Cheap"

Let it be recalled why it is that free markets and competitive pricing lead to maximum national income and wealth. It is because such pricing, based on actual total costs, channels the people's expenditures and investments in a way to give them the maximum in satisfaction for the money they pay out. If all labor and capital costs are considered and it is found to cost 3 cents a mile to move people by rail and 6 cents a mile to move them by air, then those should be the relative rates charged for the two services, if real economy in transportation is to be attained. If instead, because of subsidies, air transportation is priced a cent or more per mile below actual cost, then the nation's available labor and capital will be wastefully used in providing a service which could be given by rail with less consumption of labor and capital. It is the express purpose of subsidies to divert productive effort away from the more economical goods and services and into production that is less economical, by making things which are actually very expensive appear less costly than they really are.

In its fiscal policy toward transportation, the government treats railroad service in much the same discriminatory way that it treats whisky in excise taxation. Both railroad service and whisky have been given arbitrary financial burdens to carry, which apply to them alone and not to their competitors, with the result that customers are artificially discouraged by the prices of whisky and railroad service from purchasing as much of either of them as they would like and, instead, are induced to seek competing substitutes. A laudable social purpose is, no doubt, served when a tax of $9 per gallon on whisky and of only 25 cents per gallon on beer results in discouraging the consumption of whisky in favor of beer. But what is there so morally reprehensible about railroad service which can excuse similar government action to inflate the relative price of railroad service, driving traffic to substitute types of transportation?

Railroads in Odd Company

Railroad haulage is the only form of general domestic transporation which now has to be priced high enough to reflect *all* the costs of the service. Air, waterway, and highway transporation all enjoy, by contrast with the railroads, the use of expensive "fixed plant" which is provided by the government and for which users pay fees varying from zero upward to a substantial fraction of the carrying and maintenance charges on the government-owned plant. In no instance, however, do the charges for the use of the government-owned plant even approximate the share of "fixed plant" costs with which railroad service is burdened, in having to provide and maintain all the property used in producing railroad service out of rates paid by the users of the service. Thus discriminatory government action arbitrarily increases the *relative* price of railroad movement, in comparision to prices charged for other forms of transportation—in exactly the same way that a parallel government policy toward the beverage business makes the price of whisky relatively much higher than the price of beer.

Railroad haulage is treated, by the government's discriminatory fiscal policy, as if it were a service that the people should be encouraged to avoid—but without any

moral, economic or strategic reason for such discrimination. The railroads are not a harmful luxury which the country could well do without. Instead, they provide a service indispensable to national well-being. The Chicago Daily News, and many others, hold the opinion that air transportation must be subsidized because aviation development is necessary to the national defense. If, however, aviation development is secured at the price of starving the railroad "assembly line" which is necessary to connect the nation's industrial plants into an effective whole, then the achievement of strength in the air will not be worth what it costs. Aviation, inland waterways, and highways are only a partial substitute for railroad service. Indeed, they provide only a small part of the transportation they themselves need. Not even motor vehicles, ships, and planes can be produced in quantity and at reasonable cost without the support of efficient railroad service.

How Discrimination Will Be Ended

It is evident that such railroad service will not continue to be forthcoming, from private investment, if present government policies toward transportation are continued. Funds invested in railroads are now earning a return of less than 3 per cent, at a time of unequalized peace-time traffic. What the rate of return is likely to be with a less favorable level of traffic is doubtless the consideration in the minds of investors which has depressed railroad equity securities to an average price only 30 per cent of that of industrial stocks.

Railroad rates have been increased somewhat, and will doubtless have to be increased further, but continuing rate advances cannot solve the railroads' financial problems, because every rate increase simply transfers that much more of their traffic to agencies of transportation which have rates made artificially low by being permitted the use of government-owned plant at less than full cost. There can be, in short, no solution to the problem of securing adequate financing of railroad plant from private sources, unless the government's policy of fiscal discrimination against the railroads is terminated.

There are two ways in which this discrimination may be ended, viz., (1) by exacting charges from the users of all government-owned transportation plant sufficient to cover in full all the carrying and maintenance costs of such plant, or (2) by beginning to provide needed plant improvements for the railroads from public funds —as highway, waterway, and air transport facilities are provided—with the costs of such plant being reflected only in part or not at all in railroad charges.

Friends of private enterprise would prefer to have this problem solved by adopting the first of the two alternatives—but it would be better to accept the second alternative than not to solve the problem at all. One alternative or the other must and will be adopted, and that soon. There is no reason whatever for believing that leaders of the country's industry or the military authorities are so unobserving and irresponsible that they will continue to sit by unconcernedly and witness the crippling of this country's industrial potential—upon which both national prosperity and national defense are based—by allowing the physical plant of the railroads to shrink and deteriorate by a repetition of the dearth of new investment in railroads which occurred in the Thirties.

Causes of Personal Injury

The analysis of personal injuries and causes is the first essential step in any organized safety campaign. One large midwestern railroad, for example, had fewer reportable casualties in 1946 than in any previous year since 1938 and, at one of its smaller shops, over 800,000 man-hours were worked without an accident. In spite of this excellent performance, there were 1,074 employees on the system, as a whole, who lost over 72 hours each on account of injuries incurred while on duty, thus indicating the possibility, and, in fact, urgent need, for still further improvement.

A breakdown of accidents to these 1,074 employees showed the location of injuries as follows: feet (toes) 21.9 per cent; hands (fingers) 16.4 per cent; torso (other than back), 15.5 per cent; leg, 14.2 per cent; back, 11.4 per cent; arm, 5.6 per cent; head (neck) 5.0 per cent; eyes, 4.1 per cent; multiple, 5.9 per cent.

Over 20 per cent, or one-fifth of these accidents, were foot and toe injuries, probably one-quarter of which would have been eliminated by the wearing of safety shoes. Materials dropped on the feet accounted for most of the foot and toe injuries, although a number were due also to stumbling and falling over objects carelessly left in exposed positions.

The second largest percentage of injuries occurred to hands and fingers, usually while handling materials. Failure to keep the fingers in the clear when opening and closing doors, and neglecting the proper use of guards on machinery and saws caused most of these injuries. Fractures and bruises became reportable injuries in a number of cases owing to the lack of prompt medical attention to avoid infection.

Head injuries were caused mostly by falls and falling materials, or by striking overhead obstructions. Failure to remove foreign bodies promptly from the eyes of employees was the most common cause of reportable eye injuries, although aversion to the use of goggles in some places where specified was a contributing factor. Incidentally, the provision of goggles which are as comfortable and light in weight as is consistent with strength will go far to overcome the objection which many shop men have to wearing them continuously.

Falls and the lack of proper care in lifting caused most of the back and torso injuries. Leg injuries were due largely to flying metal from hand-hammers, loose hammer heads, bumping into trucks or other objects. Multiple injuries came mostly from falls or from being hit by moving vehicles.

Lightning may not strike twice in the same place but injuries frequently do. On the railroad referred to, one-half of the injuries last year occurred to employees who had previously been injured while on duty. Safety rules are provided for the protection of employees, yet experienced shop men frequently violate rules either to save a few minutes of time or a little effort, thus taking a chance that they will not be injured. An examination of records indicates that an unsafe act is performed often as many as 300 times before it results in an accident. It is a good idea for shop men to be supervised and instructed in checking their work daily to see what they

are doing in an unsafe way, so that the practices may be corrected before rather than after injuries occur.

It has been well said that a careful worker is the best safety device known. The best-known antidote for accidents is to think, practice and talk safety, not only once a month, or possibly even once a week, at regular safety meetings, but every day, as routine operations are checked and rechecked from a safety standpoint.

Cleanliness, Space and Speed

The wise man concentrates on those skills and endeavors for which he possesses talent and liking. Talent being "doing easily what others find difficult," it is a quality possessed by businesses as well as by individuals. The intelligent person or concern having several talents or skills also chooses among them according to their relative marketability.

To apply this approach to the problem of building passenger traffic, the simple procedure is to set down the qualities of railroad service, actual or potential, in the order of public demand (i.e., degree of marketability) and to furnish these qualities in the order of the ease with which they can be offered, due account being taken of the extent to which these desirable qualities may already be supplied.

There is no better gage of the characteristics the public seeks in railroad passenger service than the exploration of this subject made in connection with the Sixth National Survey of Public Opinion for the Association of American Railroads (summarized in the *Railway Age* of August 24, 1946, page 342) in which 2,452 persons were asked, "What do you like best about traveling by railroad?" More persons covered by the survey were attracted by the natural spaciousness of trains, as compared with other modes of transportation, than by any other element, 34 per cent of them noting that this quality was what they liked best about railroad travel. As for the remaining "bests," 23 per cent cited safety, 9 per cent scenery, 9 per cent convenience, and 4 per cent dependability.

Space is, naturally, expensive to provide, but the railroads can provide more of it, with less added cost, than any other form of transportation except vessels operating in deep waters. It would seem, therefore, that a profitable field for the railroads to exploit is the provision of as much revenue and non-revenue space per passenger, both in coaches and in higher classes of accomodations, as is economically justifiable. In this connection, it is noteworthy that the new 85-ft. coaches placed in service by the Pennsylvania (which has the densest passenger traffic in the country and, therefore, the greatest incentive to "pack them in") seat only 44 passengers.

The second natural "talent"—safety—was attributed to the railroads not only as a first preference but was separately mentioned in comparison with other forms of transportation. In another portion of the opinion survey, the question was asked whether railroads or air lines are safest. Some 59 per cent of the respondents to this question gave the laurel to the railroads, while 11 per cent picked the air lines. An additional 20 per cent gave each agency equal rank, and the remaining 10 per cent were uncertain. The railroads, then, already possess a reputation for safety. But, as is true of all talents, it must be exploited if its rewards are to be realized.

Most railroads have at least some scenic attractions, but these can be an asset only if:

(1) Windows are kept clean to give good vision at all times.
(2) Schedules are arranged to permit daylight passage through the best scenery.
(3) The passenger's attention is called to the sights worth looking at.

Reliability was given as an outstanding railroad characteristic in a separate question asked in the survey: "Which is the more certain to get you to your destination at the expected time?" Of the respondents, 54 per cent said the railroads and 26 per cent, the air lines.

Compared with what they thought the railroads now provide, respondents were asked what improvements would induce them to travel by train to a greater degree. In this survey, 25 per cent of the respondents said improved equipment; 15 per cent said "better service"; 12 per cent said cleaner trains; 11 per cent mentioned lower passenger fares; and only 7 per cent wanted faster trains.

Improved equipment is a matter of car buying and rebuilding and the installation of modern motive power. It would appear that, in acquiring new rolling stock, the railroads should emphasize their natural talents, especially spaciousness.

The question of cleaner trains does not jibe with any natural talent the railroads possess. But, compared with their competitors, the railroads are at no particular disadvantage in the means at hand with which to keep their equipment in tip-top shape. Surely, it would cost less to maintain the cleanliness which would induce 12 per cent of the people to ride trains more, than to attain the higher speeds which would persuade only 7 per cent of the people to increase their patronage.

Fundamentals

Man's loss of faith in himself, the decline in his instinct for self-reliance, is unquestionably an underlying cause of all the world's great troubles of today. It began long before the outbreak of the second world war; it is primarily responsible for the rise of the dictatorships between the wars; it made room in man's mind for the growth of faith in collectivism. Many more than those who have knowingly and intentionally gone over to the collectivist parties, many who have clung tenaciously to their belief in a free society and the inviolability of personal rights, have also lost much of their own sense of man's faith in himself. It is not a group or party affliction, but something more widespread and therefore worse.

As individual man has become less confident of his power to shape either the conditions of his personal existence or the nature of his organized society through the normal processes of democratic government, he has naturally but pathetically sought help of another sort. That is how he came to turn to the power of the state and the turn was not illogical; if men are weak as individuals they can think of no succor except that which a combination of their feeble forces seems to promise.

—The Wall Street Journal

What Electronics May Do on Diners

New York Railroad Club surveys combined possibilities of electronically cooking fresh and frozen foods by which kitchen space can be reduced one-half

THE potentialities of electronic food preparation on railway dining cars were explored by the New York Railroad Club at its meeting on the evening of April 17. The program was in the form of a symposium to which four speakers contributed.

A. E. Welch, manager of the Radarange Division, Raytheon Manufacturing Company, dealt with the evolution of the microwave magnetron, which is the heating element used in the high-frequency type of electronic cooking, and described the character of the heating from which quick cooking results. Owen Webber, president of Owen Webber, Inc., dealt with the facilities needed in the dining-car kitchen to condition quick-frozen, fresh and precooked foods.

Carl Kolb, vice-president of Quick Frozen Foods Magazine, discussed some of the problems involved in the development of frozen precooked foods. E. D. Campbell, vice-president, engineering, of the American Car & Foundry Co., presented plans for a dining car in which the space saved by the "electronic galley" permits an increase in seating capacity from 48 to 68. Abstracts of the papers follow.

Visual demonstrations of electronic cooking were made on the stage and the usual buffet following the meeting was supplemented by food electronically prepared on the spot.

Adapting the Dining Car to Electronic Cooking

By E. D. CAMPBELL
Vice-President Engineering, American Car & Foundry Co.

IN traveling, either for business or pleasure, our reactions as to the success of a trip are largely based on the quality of the food and the service. A recollection of the excellence of the food and service at any hotel or summer resort prompts us to return. The same reaction is true in railroad travel. Railroads recognize this and have attractive dining car menus and good service. However, it is a continuous headache to provide such a menu and is so costly that diners are usually operated at a loss. Presented here is an approach to this problem that may possibly eliminate the headaches and the red ink.

The railroads have placed orders for hundreds of millions of dollars worth of equipment at a time when prices are at an all-time high. Comforts that were the subjects of dreams twenty-five years ago are now embodied in these cars. Are the dining car and its services apace with the balance of the equipment? Perhaps we are retaining old-fashioned kitchens with modern de luxe comforts in the other appointments of the dining cars.

One of the government bureaus is busy making a survey of the sanitary conditions existing in the present diners as well as those now on order. For the present, their findings will result in recommendations covering the equipment's sanitary facilities.

The Sanitation Manual for Land and Air Conveyances, as issued by the United States Public Health Service, and the revisions made recently to this manual set forth recommended sanitation practice concerning water supply, toilet facilities, handling and storage of food, and garbage disposal among other recommendations. These sanitary conditions and facilities are to a large extent automatically taken care of in the electronic diner. It is obvious that frozen foods, as suggested for use in this diner, more than meet the recommendations for storage and handling of food. According to the recommendations, all food must be kept before cooking at a temperature not over 50 deg. F. This is a very mild requirement and, of course, a much lower temperature is required in the storage of frozen foods. The dish-washing requirement is quite severe as outlined in the Sanitation Manual. However, it admits of the use of washing machines, provided the apparatus employs some of the outlined methods for bactericidal treatment.

One of the salient items is that of garbage and waste disposal. The railroads are cooperating and making a sincere and conscientious effort to take care of these sanitary recommendations, yet it is a problem for the dining car superintendents. The operation of diners equipped with the electronic kitchens, and the other appurtenances in keeping, would ease the situation.

At this time, it is not feasible to give any accurate costs of operating a diner of this nature. However, some phases of the operation have a definite trend towards decreasing the cost of operation. These can be summarized as follows:

(a) The turnover in feeding 60 to 68 customers every 25 to 30 min. instead of 48 people every 35 to 45 min. increases the cash receipts.

(b) In some trains where a second conventional dining car is necessary properly to accommodate the passengers, one of the new electronic cars may be sufficient.

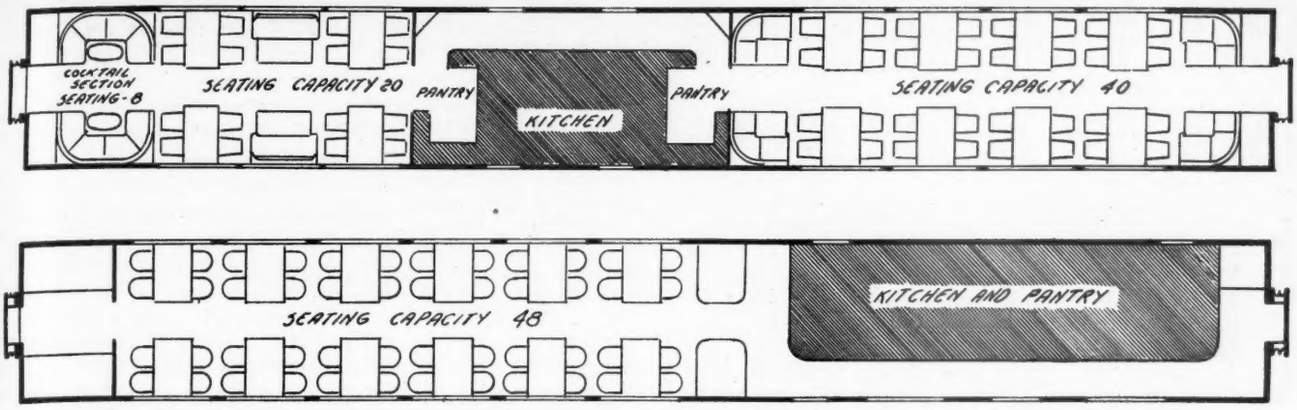
(c) In operating with frozen packaged food and the changes of crew en route, the possibility exists of eliminating the crew dormitory car.

(d) It is also possible that an additional revenue-producing car can replace either one or both of these cars, still providing satisfactory service.

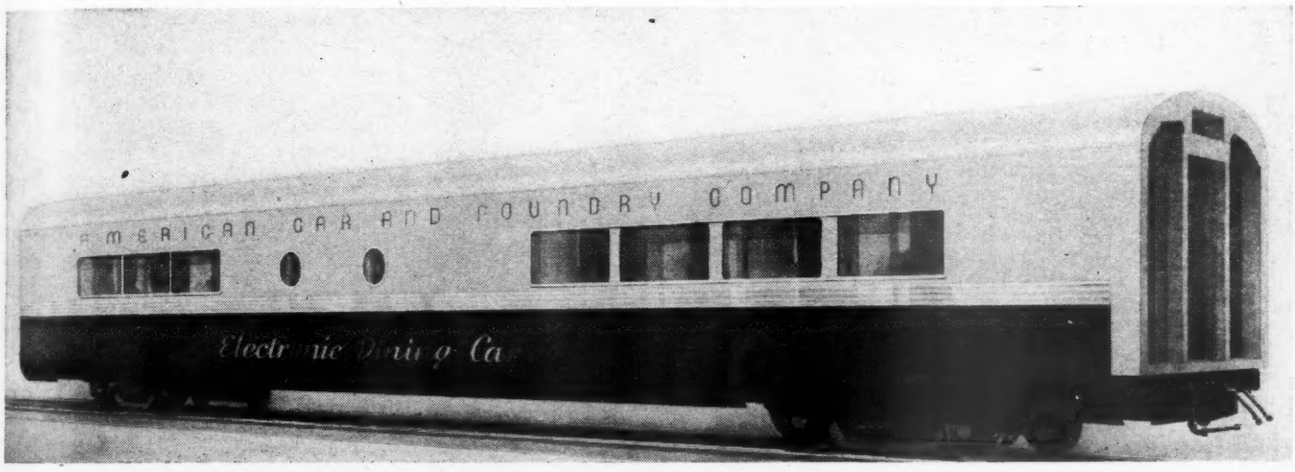
(e) Less work is required in the kitchen, but whether this will result in a saving in crew wages in the overall picture is not known at this time. While fewer men are required in the kitchen, probably the expense of a higher type of trained personnel and also additional help at the strategic locations for replenishing the food supply en route may equalize the wage outlay.

Floor Plan

In developing the design shown in the floor plan we have considered a utilitarian all-purpose car. In placing the kitchen at the center of the car, several advantages appear when compared to the conventional diner. Some of these are:



Top diagram—Electronic diner seats 68. Bottom diagram—Standard diner has seating capacity of 48



What the outside of the car might look like

(a) It shortens the distance waiters must travel from kitchen to tables.

(b) Better distribution of the weight.

(c) One end of the car can be used for serving the full-course meal and the other for blue-plate service and sandwiches.

(d) The long tunnel-like appearance of the present car is broken, and the interior designer has more opportunity to "do his stuff."

(e) Increased seating capacity; sufficient tables can be placed in this car for 68 persons whereas a standard diner has a seating capacity of 48.

Kitchen Equipment

Proper ventilation and the expulsion of surplus hot air present an unsolved problem in a standard dining-car kitchen. Kitchen crews are not able in the prevailing high temperatures to do their best work. An electronic dining-car kitchen eliminates this situation and chefs can work in the same air-conditioned atmosphere as the passengers.

The floor plans compare a present diner and the electronic dining car. On an 85-ft. car the electronic kitchen, including two steward's desks and two service pantries, occupies approximately 21 ft. The kitchen proper, exclusive of two pantries, is 13 ft. The pantries, one at each end of the kitchen, provide ingredients for salads, and contain the ice-cream cabinets, cold drinks and beverages with the necessary facilities and equipment of china, silverware, linens, etc.

Waiters working from each end of the kitchen prepare salads, beverages, ice cream and, of course, serve customers direct from these pantries.

In a conventional type diner the longitudinal dimension of the kitchen is approximately 26 ft. or 28 ft.

The minimum requirements of electrical power of diners now building call for a generator capacity of approximately 20 kw. The storage-battery capacities vary from 600 to 1,000 ampere-hours. Generally, the air-conditioning load is 14 kw. The diner with a minimum electric load will have as its equipment a coal range, charcoal broilers, steam coffee urn, steam heating table, hand dish washing and ice refrigeration. This, as you know, is an old-time standard, and the equipment is not in keeping with the modern trend, except for the air-conditioning system. The latter, however, only takes care of the dining room.

The next step in power requirement is the 25 or 30 kw. generator. This car is basically the same as the above except that it includes more electrical equipment. Such a car, which we will call car *B*, is equipped with the coal range, a combination charcoal-electric broiler, steam-electric coffee urn, electrically heated steam table, electric dish washer and mechanical refrigeration.

A fair comparision is that of an all-electric diner having a total electrical load of 60 kw. We will call this car *C* and the electronic diner car *D*. In the table the electrical loads required by the facilities in the latter two types of diners are set forth in parallel columns.

A garbage disposal unit of the grinder type utilizes only a ¼ hp. motor in its operation, which if required, can be added to either of the diners. If a.c. current is available germicidal lamps can also be installed, but here again the power requirement is very small.

The point is that the power requirements of *C* and *D* diners are approximately the same. The all-electric dining cars, or car *C*, some of which are on order, are equipped with two axle-

driven generators, rated 25-30 kw., 134-volt—218-ampere continuous at 1,900 r.p.m. The problem of furnishing more power for modern trains was evident before anyone thought of an electronic diner.

Cafe Section

The suggested diner is provided with rounded sofas at one end of the car, forming a secluded cocktail lounge with an ultimate seating capacity of eight. A bulkhead separates this section from the cafe section. The cafe seats 20 people, 16 at four tables and four on side sofas behind two tables 42 in. long. Modern materials are used throughout, such as plastic laminated wood for furniture.

Dining Section

The seating capacity of the dining section is 40 people, obtained with four tables seating two each and eight tables four each. The basic lighting is indirect, so conceived that it will bring out the decorative features of the room.

Exterior

The arrangement of kitchen in the center of the car affords better opportunity for styling the exterior of these cars. Kitchen windows in the conventional diner are always a problem as their dimensions do not correspond with those of the windows in the dining section. This trouble does not exist in the electronic diner; consequently, exterior treatment in striping for streamlining and color effects is simplified.

Weight Distribution

The positioning of the present-day dining-car kitchen immediately over a truck makes for an inequality of car-load distribution, which creates a problem for the car designer. Consequently, balancing of the load is so difficult that the standard diner is likely to exhibit "nosing" tendencies, especially in negotiating sharp curves.

If it is the decision of some railroads to locate the kitchen at one end of the car, we at least get the benefit of a considerable reduction in weight. In such a case, the end-placed electronic kitchen can be confined to the cooking equipment only and a waiter's set-up station can be placed halfway down on one side of the dining-room area. Here could be located the Navy type coffee Silex unit, water pitchers, silver drawers, butter, rolls, crackers, condiments, small-sized china, together with cups and saucers and glasses in "protectray" drawers. This arrangement would somewhat relieve the present pantry waiter congestion.

The following statistics were obtained from superintendents of dining-car service of two railroads handling the largest passenger traffic from the eastern seaboard to the Middle West. In runs of this nature, which include the serving of dinners and breakfasts, from 200 to 400 meals are served. All cooking is accomplished on the car, except that necessary for soups and some pastries. The personnel required is usually four cooks, seven waiters, and one steward. The service load is probably more than is generally realized, and breaking this into the various factors we obtained the following approximate weights:

Approximate weight of all food taken aboard, lb.	1,800
Approximate weight of china, silver, and utensils, lb.	1,750
Approximate weight of ice for refrigeration and other services, lb.	2,100
Approximate weight of water carried for washing dishes and all other operations requiring water, lb.	3,400

Therefore, the approximate total live or service load is 9,050 lb. This weight is exclusive of the crew, which will approximate 2,000 lb. Also, the kitchen equipment will average 7,500 lb., resulting in a grand total of 18,550 lb. distributed over approximately one-third of the car length.

It is difficult to estimate the reduction in weight obtained by the use of the electronic dining-car equipment as no diners have been so equipped. A conservative estimate is that 30 per cent, or approximately 6,000 lb., can be saved of the weights shown for present diners.

New Methods of Food Preparation

By ***OWEN WEBBER***
President, Owen Webber, Inc.

IN October, 1944, I was invited to address the Society of Naval Architects on postwar galley design and operation for passenger ships. My analysis rested on six factors applicable in every respect to the problems with which the railroads are concerned, namely:

1. The percentage of labor cost per dollar of food sales.
2. The cost of premises occupancy (rent).
3. The rated efficiency of the commissary buyer responsible for commitments of wholesale food materials.
4. Food waste and spoilage, depreciation and shrinkage.
5. Maintenance and replacement charges.
6. Quality of delivered food items and rating of service.

A great reduction in labor cost per dollar of food sales may be effected by providing a diner galley which operates with a personnel of three instead of five which will, notwithstanding, accelerate and simplify food service to the extent that one waiter can satisfactorily attend from ten to twelve seats instead of eight.

The cost of premises occupancy is a greater aggravation for the railroads than the steamship lines. The sea, as a highway, is free to all, whereas the railroad maintains a roadbed at immense cost so that if every expense involved is prorated and levied against the dining-car fleet by each railroad (which I doubt they do), then the cost per square foot area of the diner as overhead would make the finest Fifth Avenue store rental in New York look like a bargain basement item. In this case the total railroad operating expense which should be prorated and levied as a car rental would be relieved by an approximate 25 per cent reduction in galley occupancy area, which means enough car space to afford over 60 seats instead of 48.

The savings of food waste, spoilage, depreciation, and shrinkage are substantial. The galley as laid out with the new apparatus will facilitate a very close system of control. All foods would be packaged in fixed portions which will permit of rigid accounting. Due to the

Electrical Loads in the All-Electric and the Electronic Diners Compared

	Total connected load in watts	
	Car C	Car D
Lights	3,500	3,500
Air conditioning	14,000	16,000
Electric broilizer	4,000	....
Steam-table immersion heater	1,000	....
Electric coffee urn	3,000	3,000
Mechanical refrigeration	2,000	4,000
Dish washer	1,000	1,000
Toaster	1,500	1,500
Electric ranges (3 at 10 kw.)	30,000	....
Electronic ranges (4 at 4.6 kw.)	....	18,400
Searers (2 at 2 kw.)	....	4,000
Trunnion kettles (2 at 1 kw.)	....	2,000
Induction heaters (2 at 2.6 kw.)	....	5,200
Bucket egg boilers (2 at 0.5 kw.)	....	1,000
	60,000	59,600

fact that the greater part of the food stock will be frozen, the necessarily concise packaging is adaptable to an efficient storage rating per cubic foot as compared with any factor which could be reached with perishables.

Another advantage lies in the fact that by packaging frozen foods, odor and consequent airborne flavor and bouquet contamination are not transmitted, or, in any event, are minimized.

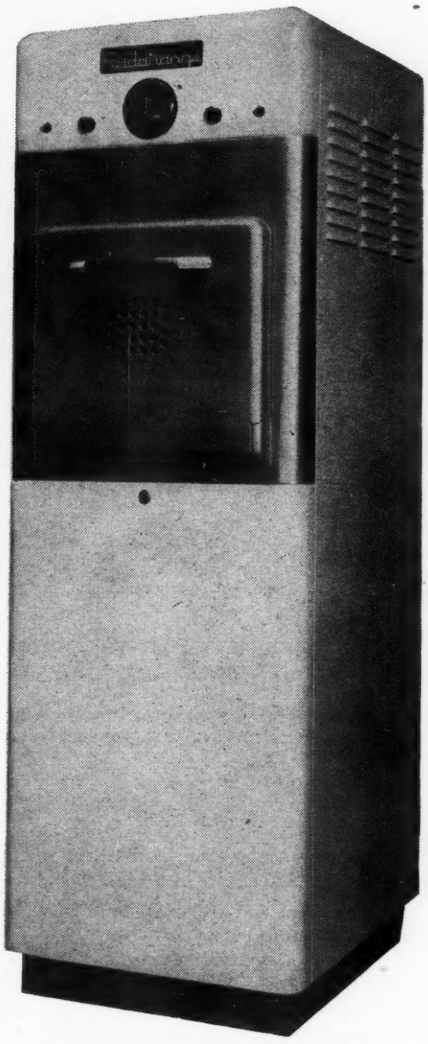
The Equipment

The preparation of food in the future will probably be more adequately described by using the term "conditioning" rather than "cooking." The hot-food conditioning equipment of the future for railroad dining cars and on shipboard will principally be the electronic oven to handle precooked frozen foods together with some specific fresh-food items for direct cooking, for which it is admirably suited, supplemented by a battery of small trunnion steam-jacketed kettles, electrically operated and thermostatically controlled, in capacities from two to eight quarts. In these kettles the chef would heat up frozen soups, stews, fricassees, Newburgs, and bulk au gratin dishes. These could then issue from a conventional steam table equipped with small-capacity inserts or an electric hot-food serving table utilizing circulating hot air in an insulated pan instead of hot water. In addition, some spot-work cooking apparatus will be required which should consist of two or more induction-heated elements together with a selected complement of utensils and one pressure steamer, all having a small armature as an integral part of the bottom. A meat-searing unit will be required which will resemble a small electric annealing furnace. Here steaks or roasts will be surface seared in a matter of seconds prior to being placed in the electronic oven. All of this apparatus is an entirely new conception at the moment, but has progressed to a point well beyond the experimental production stage.

Food-Shrinkage Reduced

Shrinkage is of some importance. All food has an extremely high water content ranging from 68 to 90 per cent. Filet mignon, for instance, is 79 per cent water; therefore, the shrinkage ratio under conventional methods of cooking represents a great loss.

A filet mignon to be medium well done is seared for 20 sec. and then electrically cooked for 55 sec. Consequently, it is spared what under ordinary cooking methods is, in reality, an accelerated evaporation, a depreciating feature of conventional radiated-heat cooking equipment. Shrinkage in this instance runs around 5 per cent instead of 10-12 per cent. Foods, which lend themselves to direct electronic cooking lose very little nutritional value in handling. For example, one can cook certain vegetables without water, avoiding the attendant nutritional washing-out process.



A late model of the Raytheon Radarange, which prepares food in seconds instead of minutes

With the combination of frozen cooked foods and the electronic oven, a wide range of specialties can easily be provided which cannot now be undertaken with present apparatus for the following reasons. It is impractical to burden a diner with equipment which would be intermittently used for reason of dead load and space occupancy in confined quarters, neither can the time factor of cooking and service tolerate the added strain. The railroad diner has, therefore, been obliged to hold to a comparatively small range selective menu, which over the years has become monotonously repetitive.

With the equipment described one could enjoy hot cakes, waffles, au gratin dishes, fricassees, and Newburgs, all of which can be excellently cooked in advance with suitable equipment, cleanliness, and supervision, and with expert handling, then frozen, and finally reconditioned by the electronic oven in the diner galley.

Sanitation

We are all increasingly conscious of the dangers of infection. With adequate regulation food contamination can be reduced to an unheard-of minimum, and the picture of health contribution can be complete by the provision for some types of food service of disposable tableware, plates and dishes of wood pulp, plastic covered, monogrammed and decorated, and all at a price permitting them to be discarded after one using —good-looking equipment which in no way should be pictured as a picnic plate.

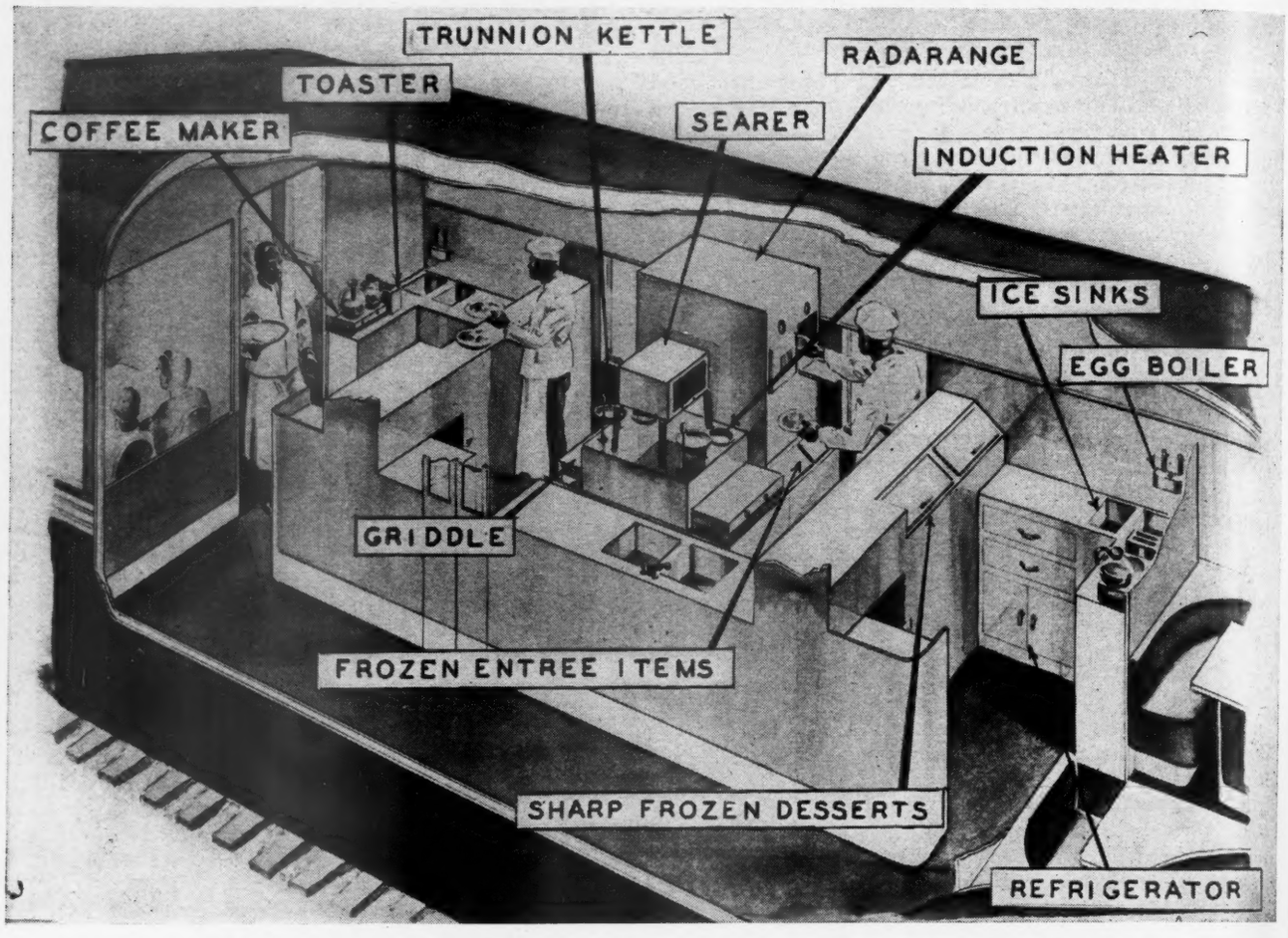
Such a step would promote health and at the same time reduce overhead by eliminating bulky dishwashing equipment and the carrying of unnecessarily large hot-water tanks which add to the dead load of the railroad car. The early procurement of such disposable items depends on concerted enthusiasm and support.

The question of contained B.t.u. value in any fuel is not the principal point to consider; the main issue is the percentage of delivered heat application. Next comes the convenience and cleanliness of operation. Equally important is the factor of food shrinkage. Finally, any method of heat delivery in cooking which involves combustion within the immediate working premises produces a precarious situation in the confined quarters of a galley.

Questionable Operating Habits

The railroad dining car as now designed and operated is a liability. Whatever the charge to the public for each item on the menu, the diner is now in the category of overhead—tolerated red ink.

The truly regal latest articulated diner-kitchen-dormitory railroad equipment sometimes represents one-fifth of the entire train and constitutes something totally in addition to the seat, berth or room occupancy area. Unless some sensible recourse is found, in time economic necessity will step in and dictate no cooking on board, a scheduling of diner seats, the provisioning of the diner at scheduled stops along the route, the withdrawal of diner crews from the train at scheduled points, the elimination of dormitory cars, and abandonment of selective menus. Some of these are not pleasant measures to



Galley of electronic dining car designed by engineers of American Car & Foundry Co. in collaboration with Owen T. Webber. The main cooking device is Raytheon's "Radarange"

contemplate. Here we are examining designs for dining-car operation which will change the ledger ink from red to black and do more for passenger welfare and good will than has been evolved since the introduction of air conditioning.

Convenience of Galley Operations

In the proposed plan of the galley the quarters are necessarily confined to a relatively small area and this is unfortunately narrow in width. Under conventional planning this has always resulted in a cramped situation with the additional disadvantage that the cooks are required to work sideways to the direction of train travel instead of facing, which would allow greater stability of stance.

The proposed arrangement rectifies this drawback. Furthermore, the position of each piece of equipment has been extensively studied as to operating motion. Consequently, the very fact of ultra confinement of space works to an advantage in permitting each operator to stand in one position for a long cycle of movements, and no stooping is required, since all oven and searer openings are above table height.

Many deliveries of items stored in the substructures — plates, bowls, trays, glasses—can be effected automatically by means of devices known as Lowerators. Even the delivery of food packages within the cooling chests can, I believe, be facilitated by horizontally placed Lowerators.

Referring again to the phantom view of the diner galley, the menu service is handled by one operator for each side. He will condition and issue soups, entrees, vegetables, gravies and sauces and in addition all specialty items such as hot cakes, griddle cakes, sandwiches, hot pies, etc. Each waiter will "self-serve" the balance of the menu—salads, coffee, ice cream, appetizers, fruits, butter, rolls, toast, etc.

In addition, there will be required a "swing" man who will dress or keep in proper order the food items in the waiters' self-service equipment areas fore and aft, heretofore known as the pantry: and wash such crockery and glass as cannot be acceptably replaced by "disposable" ware (at least for the time being), or if operators insist on retaining a full line of crockery and glass then ample space is available for a run of equipment to substantially wash up these items, and the work will be performed without interfering in any way with the food service or waiter circulation.

Soiled ware will be placed in a "tote box" cradled in a ball-bearing sliding chassis which can be pulled out with extension-arm slides on each side of the main serving fixture for access by the waiter to deposit and on the other side by the No. 3 man to remove for washing.

In conclusion, these equipment innovations offer a manifold contribution. Primarily and principally they affect operating cost, consequently profit. Then they are all adjuncts of salesmanship, contributing individuality and refinement to the food service and travel comfort which cannot be fully realized in any other way, and inasmuch as in the new car design so much of the operation is now brought out in the public front, the employees will be kept on their toes at tasks made interesting and in quarters rendered comfortable and convenient.

Electronic Food Conditioning

By A. E. WELCH

Manager, Radarange Division, Raytheon Manufacturing Company, Waltham, Mass.

HIGH-FREQUENCY electronic cooking, as developed by the Raytheon Manufacturing Company, must be distinguished from the usual low-frequency induction and dielectric methods which have been tried during the past several years. The older methods were limited in scope, for with them it was necessary to tune the apparatus to suit the particular food being heated. Texture, shape, and dielectric constants were all variables which had to be taken into consideration, making consistent results difficult to obtain.

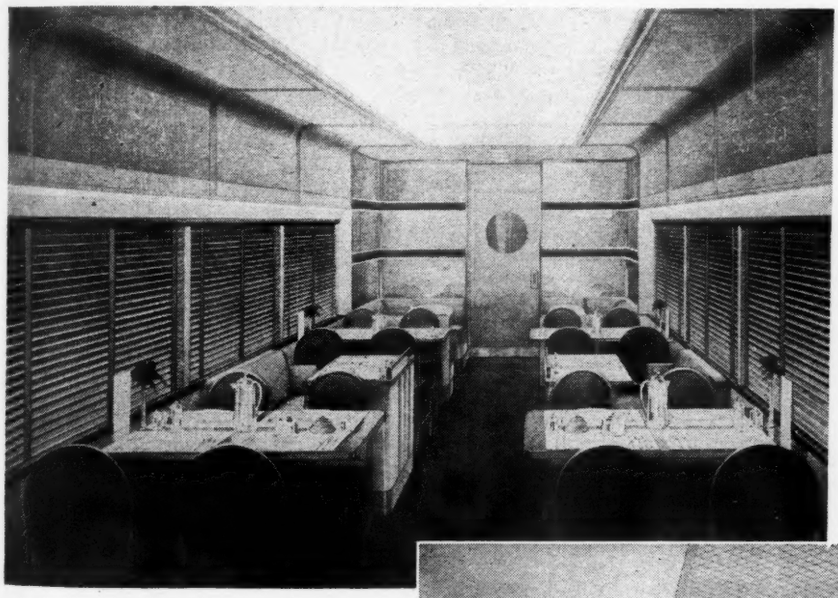
The rapid development of high-frequency electronic cooking equipment by our company was made possible only by the experience acquired during the war period, when most of our activity centered around the generation and control of high frequency electromagnetic energy, utilized in Radar equipments.

Prior to our entry in the war, our company had done considerable research work in the field of high-frequency energy, and because of that experience in cooperation with the government, Army, Navy, and scientific field laboratories, succeeded in developing a practical tube, capable of producing amazing power at frequencies high in the microwave portion of the spectrum. This was the cavity magnetron, and with its birth, the way was cleared for the development of effective and practical Radar.

The microwave magnetron, mostly copper, and bearing no physical resemblance to the conventional tube, stands today as one of the war's outstanding technical accomplishments and certainly is the most important electronic tube to be developed in the last decade. At the war's end we were in a position to produce sizeable quantities of magnetrons and began at once to develop commercial applications which would utilize the electromagnetic energy that was made available by these tubes. Many possibilities presented themselves, but two stood out above the rest: the first, a means of communication; the second, cooking.

In its application to communications, we found, because microwaves travel in a straight line and can be directed in a narrow beam towards a definite target or station, they became a means of point-to-point communication, capable of delivering voice, facsimile, photographs and other types of signals, all without benefit of the conventional, cumbersome and expensive telephone-pole or wired systems.

In electromagnetic cooking, it was found this energy was capable of penetrating certain types of material, and in many cases, the material absorbed the energy to become extremely hot within a short space of time. Food was one class of material to react in this way, and it was immediately obvious that if this energy could be correctly harnessed, a revolutionary type of cooking would be available. Strictly speaking, this method is not new, for as long as man has made use of glowing embers to cook meats and other types of foods, he has unconsciously made use of electromagnetic energy. In the process of burning, the charcoal embers emit infra-



Artist's rendering of the dining room (above) and the interior of the electronic dining car (right) designed by engineers of American Car & Foundry Co. in collaboration with Owen T. Webber

red radiation which is high frequency energy, exhibiting many of the same characteristics as that generated for use in Radar equipments. It is this infra-red radiation which, by penetrating the food to a certain depth, actually does the bulk of the cooking.

In the case of the open fire, the penetration of the electromagnetic energy in the infra-red category, goes very little deeper than the surface, due to its extremely short wave length, and it is by conduction that the inner fibers of the food receive their heat. Realizing that microwaves, the type of energy employed by Radar, were of longer wave length and possessed greater penetrating power than infra-red radiation, we undertook an extensive program to harness this energy. It was felt that by directing the energy into a confined or closed chamber where it would come in contact with the food, cooking times for these foods would be a fraction of those required on or in conventional equipment.

Evolution of the Radarange

Our first success was a range called the "Sandwich Model," which had an oven space 8 in. wide, 4 in. deep, and 2½ in. high. The application of this unit was, of course, limited, but experience gained with the model led to the development of a new and larger oven of the type which is 13 in. wide, 14 in. deep and 15 in. high.

From these dimensions, it is obvious that the range was not designed to handle large masses of food such as turkeys and roasts. It was, on the other hand, designed to handle food masses typical of short-order or a-la-carte service. Another basic factor, important in determining the type of foods which can be cooked in this oven, is the penetrating power of our energy, which at maximum efficiency is limited to 2½ in.

Our range is not a complicated-appearing piece of equipment, nor does one need a master's degree in physics or electrical engineering to utilize the range for the preparation or conditioning of food.

Void of the maze of dials and switches usually associated with a piece of electronic equipment, the control panel of the range contains only a master on-off switch, an electrical timer, and two push buttons—one to start cooking and one to stop cooking.

Since the perfection of the oven-type Radarange electronic cooker, we have conducted numerous experiments in the conditioning of foods, both fresh and frozen. A few typical examples of cooking time are as follows.

Sandwiches	
1 frankfurter	10 sec.
1 hamburger	20 sec.
1 ham and egg	25 sec.
Eggs	
1 fried	15 sec.
1 poached	30 sec.
1 scrambled	15 sec.
Meats	
Tenderloin-sirloin steak, 10 oz., rare	50 sec.
Tenderloin-sirloin steak, 10 oz., medium	55 sec.
Tenderloin-sirloin steak, 10 oz., well done	60 sec.
Pork, lamb chops, and fish fillet	50 sec.
Lobster, 1 lb.	2½ min.
1 dozen clams	40 sec.
½ chicken	2 min.
Whole chicken	4 min.
Vegetables	
Baked potato	1½ min.
Corn on cob	45 sec.
Baked apple	1½ min.
Pastries	
Cup cakes, muffins and biscuits	30 sec.
Layer cakes, per layer	3 min.
Frozen Foods	
Pre-cooked frozen food meals (12 to 14 oz.)	2½ min.

Since the power entering the oven is constant, cooking is controlled solely by time. These times vary almost in proportion to the weight of the food placed in the oven. For example, one frankfurter in a roll or a cheese sandwich is ready to eat in 10 seconds, but if four frankfurters or four cheese sandwiches are placed in the oven, the cooking time required is 30 seconds.

At this point, it is probably well to stop for a moment to consider a characteristic of electronic cooking which raises a few psychological problems. Since the energy which creates the heat is capable of penetrating food, there is little more heat at the surface of the food than there is in adjacent inner portions. Consequently, no crusting or browning can take place in the length of time required to cook the food. This does not mean that meats do not change color, for they definitely do. The meat reacts to the heat and takes the appearance of that found directly under the crust of a roast prepared in the conventional manner. Therefore, in order to provide a seared or browned-appearing steak, we have developed a unit called "Radar-Sear." This unit, equipped with six glow-rods, developing 2,000 deg. F., can be used to sear steaks, chops, chickens, fish, etc., in less than 30 seconds time. Cooking need not immediately follow searing, as this can be done during slack hours, and the seared items held in a refrigerator or freezer until required.

The bulk of the items given as examples are not precooked frozen foods, but it is our considered opinion that the emphasis on fresh and precooked frozen foods will increase rapidly during the near future, and ultimately electronic ovens will find 90 per cent or better of their utility in the reconstitution of this type of food. Experiments conducted to date on precooked frozen foods have led us to believe that changes in the current methods of processing these foods must be accomplished in order to obtain optimum results. For example, vegtables should not be completely cooked prior to freezing, inasmuch as the Radarange actually does a partial cooking, while reconstituting the food from 0 deg. F. or below to the neighborhood of 180 deg. F.

Wherever possible, meat such as roast beef or lamb, sliced chicken, etc., is best reconstituted when overlapping of the slices is held to a minimum. Wherever there is overlapping, there is a tendency for a cold spot to remain. It is also evident from our experiments that best results are obtained when foods are conditioned in containers which allow the retention of most of the moisture dispelled from the food during the period of defrosting or cooking.

As believers in the ultimate success of precooked frozen foods, we have discussed with thousands of restaurant owners and operators the advantages of using food packaged in individual portions, rather than in complete meal plates. I have been told that with 21 vegetables and seven types of meats, over 30,000 meal combinations are possible. It is immediately obvious that it would be impractical to attempt to carry an inventory of complete meals, and at the same time, provide all possible meal combinations. Utilizing individual portions, however, maximum menu flexibility is a simple problem, and any of the 30,000 meal combinations can be made up at a moment's notice. There are several frozen-food processors who are well along in the development of methods for packaging individual portions, as well as complete meals.

In conjunction with this latter system, a convenient deep-freeze dispenser is necessary, and manufacturers are currently in the process of producing such equipment.

The power requirements of electronic ranges are, of course, of particular interest to those concerned with dining car design and operation. Present Radaranges draw a maximum of 30 amp. at 230 volts o.c. Certain installation adjustments on the range, however, make it possible to operate on circuits supplying nominal voltages of plus or minus 3½ or 7 per cent of either 230 or 208 volts. Thus, the lowest setting is for 194 volts and the highest for 246 volts with several intermediate values. On any particular setting the unit is designed to handle line fluctuations of plus or minus 10 per cent.

Magnetron Must Be Cooled

In addition to electrical connections, it is also necessary to supply water to cool the magnetron while the unit is actually cooking. Approximately 1½ quarts per minute must flow through a jacket surrounding the cathode of the tube, or overheating may cause tube failure within a very short time. In dining-car operation it will be necessary,

of course, to recirculate a given amount of water, whereas in stationary installations, the exhausted water is merely passed to a drain and not used again.

The electronic cooker operates with very high efficiency. Forty-two per cent of all the electrical power entering the unit from the wall plug is ultimately converted into heat within the foods placed in the oven, and 88 per cent of the electromagnetic energy generated is converted into heat. From these figures it is seen that the electronic cooker is 10 to 20 times more efficient than any other cooking device on the market. Electric ranges, for instance, are usually considered to have efficiency approximating 3 to 7 per cent.

Quick-Frozen Foods for Diners

By CARL KOLB
Vice-President, Quick Frozen Foods Magazine

The proper management of galleys can perform three definite services: first, cut down maintenance costs; second, speed up service; third, contribute to overall reputation through the service of better quality food. To these three the railroad can properly add a fourth benefit—a wider menu variety which has been noticeably lacking.

The main purpose of the plans presented here is to effect the greatest possible savings in labor; to reduce galley occupancy space; to provide for more efficient buying; to reduce waste, shrinkage, and spoilage, and, last but not least, to reduce maintenance costs. A great many of the savings forthcoming from these plans are predicated almost entirely upon the utilization of quick-frozen vegetables, fruits, fish, poultry, and, particularly and ideally, precooked foods. They will be required in ample supply, at a proper price, and in the highest quality.

There will be ample stocks of frozen foods of most kinds by the time our modernized and revamped feeding methods can be put into operation. The basic quick-frozen foods show indications of greater production during the coming season than ever. Each year has shown a marked increase in the production of fruits and vegetables. The fishing fleets are back from the war and there will be a tremendous improvement in supply. Except for use by the armed services during the war, meats have not previously been frozen in large quantities, but there is ample productive capacity. The stringencies of marketing conditions have been reflected in the poultry supply, but this problem is rapidly disappearing. Because precooked foods can be packed from frozen ingredients, permitting year-round production, only the lack of proper know-how can adversely affect the supply situation—that is, as it applies to quality products.

The second concern must be one of cost. Price-wise, the advantages inherent in quick-frozen foods will undoubtedly increase. By these advantages, I mean not only the hidden advantages in labor and fuel savings—for example, the seven and one-half hours, it would take to shell enough peas to feed 500 people as well as the savings in waste and ability to employ streamline methods—but also the actual advantages gained right in the market place.

There is an advantage there. A wartime army quick-frozen vegetable test operated during the month of August, traditionally a time at which market produce is in good supply at reasonable prices, showed a four per cent saving in cost despite the fact that portion sizes on the frozen products were increased slightly over those projected for fresh.

Obviously, it is difficult to predict the future price ranges of commercially produced cooked foods in frozen form, because of the unpredictable cost levels of the principal ingredients such as meat, poultry, and fish, but the total elimination of waste, leftovers and shrinkage, which must be costly in diner service, would appear to provide ample cushion to absorb the added cost of freezing, packaging, and transportation.

Status of Precooked Foods

There is still some research to be done in the field of frozen precooked foods; still more to be learned. Any cooked food can be frozen, but many have individual peculiarities that require individual solution.

There is uncertainty in the storage life of some products. For unexplainable reasons, they deteriorate in quality after certain periods of storage even when stored at 0 deg. F. Certain spices tend to deteriorate and become less pronounced in storage; others become more predominant as the product ages.

The question of plant sanitation is a much more important matter in the production of frozen precooked foods than it is in the packing of so-called fresh foods because the cooked item is more vulnerable to bacterial contamination on account of the relatively higher temperature and condition of these products prior to freezing. While subsequent storage at freezer temperatures might stop further bacterial growth, it will not necessarily reduce bacterial count.

There is a decided and undesirable change in the texture of certain cooked foods after they have been frozen and defrosted for use, often becoming flabby or mushy. The high fat content of some cooked foods causes development of rancidity, even under conditions of zero storage, although much progress has been made in the use of anti-oxidants to prevent such occurrences. Some liquids, such as sauces, tend to separate after freezing and thawing.

These are just a few of the multitude of problems involved in the preparation of high quality frozen precooked foods. There are many, many fine-quality items on the market now; there are many more in the laboratory stage. There is no reason why the precooked line of foods cannot eventually include considerably more items than the very wide variety now available in consumer size packages.

Other Foods May Be Frozen

Hors d'oeuvres and appetizers are already an accomplished fact. Soups are being frozen successfully. The freezing of salads using lettuce or similar ingredients appears to be impossible, because of the wilting action of freezing upon such products. The number of fish, meat, and poultry entrees that can be frozen successfully is almost inexhaustible and limited only by a chef's imagination. Pastries, pies, and breads have similarly been accepted readily by the consumer for home use. Not only have many of these items been produced individually for commerical sale, but many have been combined in complete meals, including two, three, or more items packaged in a disposable plate, thus providing the added benefit of eliminating dishwashing. In dining-car operations the use of such plates would provide the added advantage of extreme sanitation.

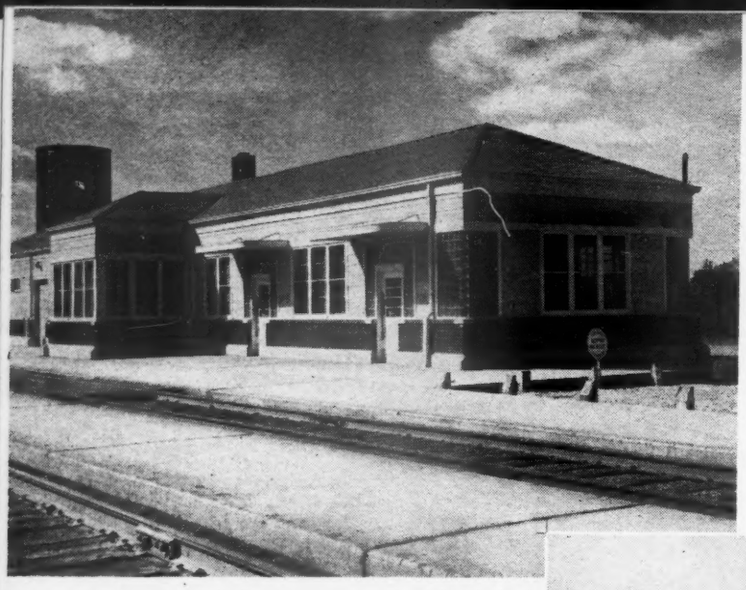
On the basis of experiments I have witnessed, it will be possible to heat all pre-cooked foods by electronics. But there are certain problems. In heating prepared plates containing two or three different ingredients attention must be given to the relative heights of the food on the plate to insure uniform heating of all items in the shortest possible time. In other instances, it will probably be necessary to revise cooking procedures slightly in preparing products to be so heated.

Naturally, with the railroads' vast and comprehensive commissary systems and

(*Continued on page 802*)

Small Passenger

Below and left are views of the Santa Fe's station at La Plata, Mo., before and after being remodeled recently. Note that the transformation has been achieved primarily by removing the overhanging eaves, regrouping the windows and installing glass-block panels, placing small canopies over the doors, and applying a base course of brick and stone



So great was the transformation wrought inside the La Plata station that it is not easy to believe the pictures below both show the interior of the same waiting room. Principal elements of the room as renovated are the modern finishing materials that have been applied to the floor, the walls and the ceiling, the recessed lighting fixtures in the ceiling, more comfortable settees, the open ticket counter flanked by glass-block panels, the modern drinking fountain, venetian blinds at the windows, and central heating

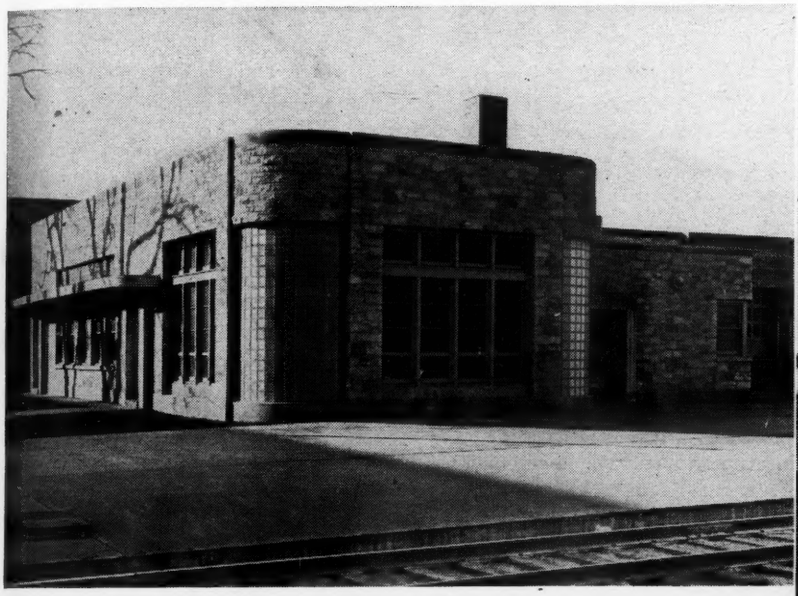
ALL over the country, as conditions permit, the railroads are bringing their small passenger stations up-to-date. Sometimes this objective is accomplished by replacing the old structure in its entirety; more frequently the procedure is to remodel the existing building to make it conform to modern ideas of design and appearance. Regardless of the method adopted the new or remodeled station is certain to afford a striking contrast, both inside and out, with its predecessor.

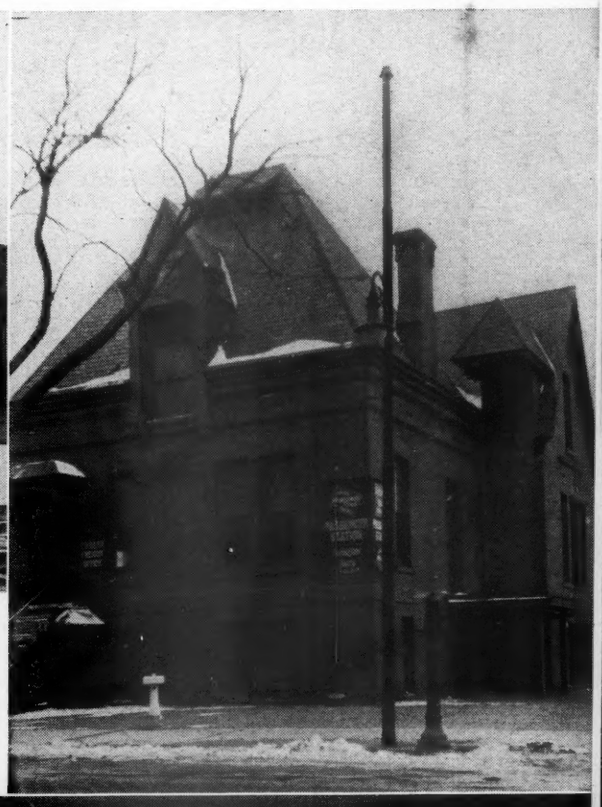
Shown on these pages are a few examples of small stations that have recently been modernized or constructed new. By way of contrast views of the old stations are included in two instances. It cannot be said that the small passenger station in its modern form is typified by any single style of architecture. For this reason the structures pictured here are intended merely to illustrate certain aspects of design that seem to be meeting with favor today, rather than to show examples that are necessarily representative of what the railroads as a whole are doing with their stations.

Many of the stations that are being replaced or remodeled today, having been designed originally to conform to the particular style of architecture that

Stations—Yesterday and Today

Pictorial comparison of new or remodeled structures with those replaced throws into sharp relief the differences in appearance and appointments





Shown in this group are views of the Burlington's new station at Rockford, Ill., the old building that it replaced and a portion of the waiting room of the new structure. The old station, with its antiquated style of architecture, is in sharp contrast with the smooth lines, the curved glass-block panels, the attractive Lannon-stone facing and the modern canopy of its successor. The view of a corner of the waiting room shows that it yields nothing to the exterior in appearance and appointments

happened to be generally in vogue at the time they were built, were once considered highly attractive. Frequently, the exterior characteristics of such stations included high peaked roofs with towering chimneys; a profusion of various decorative appurtenances, such as cupolas and dormers; a great deal of that form of ornamentation known as "gingerbread"; and relatively small windows. Due partly to their age and partly to their obsolete style of architecture, many such structures today present a gloomy, forbidding and generally uninspiring appearance.

At the other extreme among the stations built years ago were those, mostly of frame construction, that were designed merely to afford a minimum of shelter for patrons, with little or no attention being given to aesthetic considerations. In both types of structures the interiors seem in many cases to have

The North Western's station at Marinette, Wis., as it appears today after a recent remodeling job. Principal exterior changes included the removal of a cupola, certain canopies and a wide overhang at the rear, the application of a new roof of slate-surfaced asphalt shingles, and the elimination of a bay window to provide a new entrance in its place

been designed with neither comfort nor appearance in mind. As time passed and a new concept of architectural treatment, along with improved and more attractive construction and finishing materials, came into vogue, the shortcomings of these older stations, both inside and out, became painfully evident, especially in comparison with streamlined passenger trains or with any new buildings of advanced design that had been constructed in the vicinity.

When one of these old stations is thoroughly modernized or is replaced with an entirely new structure of modern design, the difference in appearance cannot be fully appreciated until the old and the new are depicted side by side, as is done here. It can be seen that much of the sharp contrast in exterior appearance is attributable to the flat or mildly-sloping roof lines that seem to have achieved so much favor today. A further factor is the tendency to do away with all "gingerbread" and to eliminate the overhanging eaves that were a standard feature of some of the older stations.

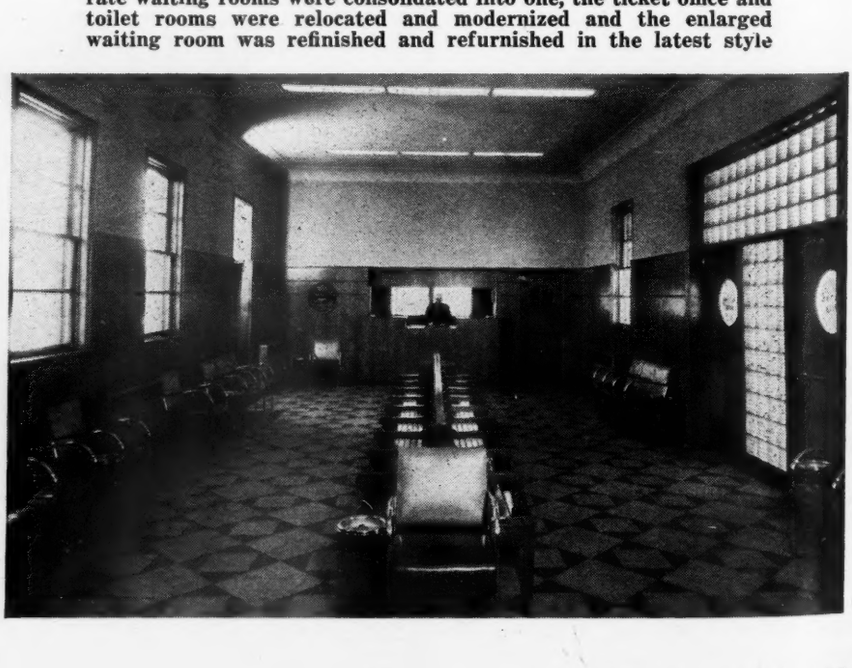
In fact, if the accompanying examples can be considered a criterion, the modern designer seems to favor a minimum of exterior ornamentation, relying rather on simplicity and straight or sweeping lines to achieve the desired effect, which is a harmonious relationship with modern streamlined equipment. One device that is used as an aid in this direction is the cantilever type canopy over the main entrance doorways, which is likely to have fluted metal edging and recessed ceiling lights. Another is the judicious use of glass block panels, particularly around doorways and at corners, with curved surfaces sometimes being introduced at the latter locations to enhance the modern aspect.

The interiors of the modernized small stations afford a contrast with the older structures that is at least equal to that presented by the exteriors. Frequently, these older stations were inadequately lighted and heated and were characterized by dark or dull colors, uncomfortable seats for patrons, plain wood floors, old-fashioned plumbing, and ticket windows that seemed to be designed to discourage any thought that the act of buying tickets could be a pleasant contact between personalities.

In contrast, the interior of the modern station is bright, colorful and comfortable and a generally pleasant place to be. This effect has been achieved partly with the aid of modern finishing materials for the floors, walls and ceilings, which are now available in a multitude of attractive color combinations. Frequently there is greater window space for better daylight illumination, supplemented by glass-block panels which thus serve a two-fold purpose. For artificial light the fluorescent fixture, often recessed into the ceiling, is gaining wide popularity.

With greater comfort for patrons uppermost in mind, individual waiting room seats, as well as settees, are often provided, frequently upholstered and with modernistic tubular steel frames. Being movable, such chairs can be shifted as necessary to suit the need or convenience of passengers. Furthermore, the act of buying tickets is being personalized and generally made more pleasant by means of open-type counters with attractive decorative features. Another "break" for patrons is being provided in the form of modern toilet facilities, with those for women frequently including a separate powder room. Finally, the new or modernized station almost invariably has a central heating plant and the latest means for conveying and disseminating heated air in such a manner as to produce the greatest comfort for customers.

On the interior of the Marinette station the two original separate waiting rooms were consolidated into one, the ticket office and toilet rooms were relocated and modernized and the enlarged waiting room was refinished and refurnished in the latest style



Union Punishes Crosser Repeal Leader

Petitions from "rank and file" continue to reach Congress protesting arbitrary procedure by which law was enacted

RAILROAD brotherhood publications such as "Labor" continue in each issue to tell their readers that there is no real opposition among railroad employees to the so-called Crosser Act amending the legislation under which their "social security" taxes and benefits are administered. What a member of Congress—or a disinterested bystander—might interpret as employee opposition really is, they assert, only the opposition of the employers (who pay most of the taxes) manifested through a few "stool pigeons" among the employees who are, they imply, being bamboozled by the railroads' analysis of the Crosser Act's effects on them.

There is evidence, however, that some brotherhood leaders are at least somewhat uneasy over that amount of opposition to the Crosser Act that has developed among their members—evidence, particularly, that these leaders are determined, if they can, to crush the opposition that has appeared and to prevent its further growth. One of the brotherhood members who has led in the organization of railroad employees who don't like the Crosser Act is Thomas Stack, of Chicago, chairman of the Railroad Employees Protective Committee of the Chicago area, a so-called rank-and-file employee organization which has been active in securing signatures to petitions to members of Congress urging repeal of that law. (See *Railway Age* of March 8, page 507, and March 22, page 631.)

Mr. Stack, an employee of the Chicago, Rock Island & Pacific, has been a member of Lodge 964 of the Brotherhood of Railway Clerks, and as such on March 12 was warned by that union's grand president, George M. Harrison, as follows:

> I think you know that all of the standard railroad labor organizations sponsored and persuaded Congress to enact the recent "Crosser Amendments" to the Railroad Retirement Unemployment Insurance and Carriers' Taxing Acts. The participation of our organization in developing and securing the enactment of these amendments was by direction and authority of the St. Louis 1943 Grand Lodge Convention.
>
> The preamble of the constitution of this brotherhood provides—"the Grand Lodge, possessing original and exclusive jurisdiction, is the source of all true and lawful authority and is the legislative and judicial head of the brotherhood. . ." and . . . the constitution provides that—"the . . . Grand Lodge . . . will have absolute and exclusive jurisdiction over all matters pertaining to the brotherhood; it is the true and legitimate source of all authority, the final resort of appeal and there is no power vested in any officer, committee or body of members to repeal, alter, or change its laws and decisions, except by referendum vote."
>
> According to our records . . . members of Lodge 964 were represented in the Grand Lodge Convention held at St. Louis by a regular and elected delegate . . . [who] was a party to the determination of the policy of the brotherhood in respect to these matters. We understand now that you recently circulated petitions among the members of the brotherhood seeking to repeal the "Crosser Amendments" and urged the members to sign said petition. We also understand that you have engaged in other activities among the members of this brotherhood and other railroad labor organizations to bring about repeal of these amendments and destroy the benefits secured for railroad and express employees, [and] thereby defeat the lawfully determined policy of this organization in respect to these matters.
>
> I regret to learn that any member of this brotherhood would permit his own selfish personal interests to transcend his obligations to his fellowmen and this brotherhood. I call upon you to cease these activities among members of this organization and point out to you that such conduct is irregular and in violation of your obligation as a member and the constitution and laws of this brotherhood. Please understand that we fully recognize your rights as an individual citizen to engage in any activities and voice any opinions respecting this or any other matter, but we challenge your right to engage in activities as a member of this brotherhood to defeat its policies and set aside its decision made in covention assembled.

Transcript Sought

In response to this communication Mr. Stack asked Mr. Harrison for a transcript of any resolutions passed at the St. Louis Grand Lodge Convention, 1943, pertaining to amendments to the Railroad Retirement Act. "I note," his letter continued, that "you state that the so-called Crosser amendments were sponsored by all of the 'standard' railroad labor organizations, which persuaded Congress to enact this legislation. This assertion, coming from you, would indicate that the 'rubber stamp' method was still in vogue with the Grand Lodge." "Hundreds of letters have been received from railroad men throughout the country upholding our stand against Public Law 572 [the Crosser Act]. The congressional record speaks for itself, with 30 of the 96 senators missing and 173 congressmen either gone home or missing and 64 congressmen voting against it, when the Crosser Bill was enacted."

Mr. Stack's letter continued:

> I do not feel that the "Grand Lodge is the true and legitimate source of all authority" as this would empower you with the law of "eminent domain." We have rights under the Constitution of the United States to protest individually or collectively any and all laws enacted repulsive to any individuals or group and we are excercising our rights under the protection of the United States Constitution in protesting this legislation and no no grand officer or lodge can thwart our progress along this line.
>
> When this masterpiece of confusion and misconception known in railroad circles as the "Double Crosser Bill" was enacted we looked to our local lodge to protest same. We asked for a ballot which your Grand Lodge denied, although we felt in Lodge 964 there was only a small minority in favor of the Crosser Amendments and this comprised some of the officers of the "Judas type" who try to gain prestige with the Grand Lodge for their own personal selfish gain.

Mr. Harrison's March 12 letter to the "rank and file" leader was signed "sincerely and fraternally," but his March 27 rejoinder to Mr. Stack's reply wound up with a mere "yours very truly." After summarizing the situation presented by Mr. Stack's announced intention of continuing to work for the repeal of the Crosser Act, and without referring to the latter's demand for a transcript of the 1943 convention's action on the "bigger benefits" proposals, Mr. Harrison wrote:

> When you were admitted to membership in this brotherhood you took a solemn obligation to obey the constitution and laws of the organization and to respect its decisions and policies. . . .
>
> In furtherance of the adopted policies of this organization, our constitution provides that its policies in support of legislative matters shall be determined by the Grand Lodge in convention, wherever possible, and empowers the grand president with the advice of the grand executive council, to determine legislative policies between conventions. . . .
>
> Article 13, Section 3, provides that the grand president shall at all times strictly enforce the constitution and laws of the brotherhood and call to account any member or members of the brotherhood violating the same. Section 11 (a) empowers the grand president to suspend any member for violation of the constitution and laws of the brotherhood or conduct unbecoming a member of the organization.

Article 26, Section 2, prohibits circularizing petitions . . . unless approved by the grand president and Section 3 . . . provides that any member issuing or circularizing such petitions shall be expelled.

Article 34, Section 3 (B) provides that no member of the brotherhood may hold membership in any organization or alliance that is dual to the purpose of the brotherhood and any member who advocates, recognizes or affiliates with any dual movement or alliance in any manner whatsoever shall be deemed to be guilty of conduct unbecoming a member and subject to expulsion. We consider "The Railroad Employees Protective Committee of the Chicago Area" as a dual movement.

In view of the foregoing we therefore inform you that you are suspended from membership in this brotherhood, effective as of this date for the offenses described herein. You will be given a hearing upon request at an early mutually convenient date by a representative designated by the grand president.

Mr. Stack's April 1 answer to this suspension notice read in part:

I am opposed to the so-called Crosser Amendments of the Railroad Retirement Act and under the Constitution of this land and under our democratic form of government I am at liberty as a citizen to protest individually or collectively any law repulsive or detrimental to my interests or those I represent. . . .

Are you sure of your position in this matter bearing in mind that half a million railroad employees cannot be wrong and that to date not one petition has been filed in Washington approving the Crosser Amendments to the Railroad Retirement Act? Do you expect to maintain this crude law on the books just because you have hired 13 lobbyists at a cost of $135,000 to keep the law on the books? You must surely realize that you embarrass the officers of your lodges by your stand in placing them in the light of "public enemies" with their own membership.

It was thoughtful of you to give me a hearing on my suspension. However, I never liked those "gas chamber" hearings given under the Russian atmosphere. Nor do I choose to be condemned by any Commissar of the Herr Goble type whom you may designate as presiding judge. I will, however, submit to trial before the membership of Lodge 964 in open session. I recognize them as a sovereign body with proper jurisdiction.

Meanwhile brotherhood leaders are urging their members to ask their congressmen to oppose and vote against bills already introduced in Congress to repeal or modify the Crosser Act, or any that may be introduced for that purpose. Specifically mentioned, for example, in the message of Irvin Barney, grand president of the carmen, are bills by Senator Hawkes of New Jersey and Representatives Gillette of Pennsylvania and Howell of Illinois, all Republicans (see *Railway Age* of March 1, page 470; March 8, page 514, and April 5, page 713).

Mr. Barney's instructions to the carmen read in part:

With the election of a new and somewhat different Congress, the railroad companies have launched a campaign against the amended law. They want to repeal all or part of the benefits we secured for railway workers and they want to reduce the amount of payroll tax they must pay in support of such benefits. The first phase of their campaign has been to misinform and mislead as many employees as possible. They have flooded the country with falsehoods about the benefits provided by the Crosser Act; they have had their supervisory officers circulate letters and petitions and prevail upon various groups of employees to sign them; and they have conducted a concerted and well-organized effort to have officials, unorganized employees and others who had failed to learn the truth, sign communications to members of Congress calling for a repeal of the 1946 benefits.

All three of the gentlemen who introduced these bills were opposed to the Crosser Act last year. There is no doubt but that the bills have been filed at the request of the railway companies and as a part of their campaign. The introduction of the bills has been encouraged by the letters which have been written to members of the Congress by railway officials and by groups of unorganized or uninformed employees who have been victimized by the falsification carried on by the railway companies for several months.

Employees Turn to Congress

Petitions to members of Congress from groups of employees who say they have been injured by the Crosser Act have originated in many parts of the country. For example, one signed by a "large number of railroad brotherhood members" in the Pittsburgh, Pa., area was submitted with the explanation that "this petition was independently conceived and drafted. Further, it was circulated entirely unofficially. Had it been possible to utilize more time in the obtaining of signatures, we feel sure the total number of signers would have been only slightly less than the total number of railroad employees in this area. . . . The national headquarters of some of the brotherhoods continue to support the legislation. This is bewildering to the local memberships. . . . We feel that we, as railroad workers, are discriminated against inasmuch as our fellow citizens, governed by the provisions of the Social Security Act, are taxed only one-sixth the amount we are taxed, for which they receive benefits out of all proportion to the taxation."

Another petition, according to the letter accompanying it, carried the signatures of 98 of the 106 employees in the traffic department of the Norfolk & Western at Roanoke, Va. Three employees there were opposed to repeal of the Crosser Act and four were undecided, it was explained. This letter included a 10-point analysis of employee objections to the act, which was described as "hand-to-mouth, pressure-inspired, exigency-of-the-moment legislation. No real equity accrues under this law. Vast sums will be a total loss to thousands of railroad workers and to all railroad companies. . . . Thousands will not get back a fraction of what they paid out."

Another letter to congressmen, urging repeal of the Crosser Act, was submitted by John H. Scoggin, of St. Paul, Minn., for a group of members of Great Northern Lodge 593 of the Brotherhood of Railway Clerks, who stated that many of his group had "attempted to find out from our officers what the proposed amendments called for but could get no information and were informed that too much publicity might hurt the chances of its being passed. . . . We learned, however, that we should have requested this information from our congressmen and protested to our officers. . . . The organizations figured 1¾ per cent increase in deductions was needed to finance the additional benefits. When the act was passed we found the tax increased . . . 4, 4¼ and 4½ per cent to take effect in 1947 instead of 1952 plus the 1¾ per cent to cover 'survivorships' and at the same time the 'death benefit' of 4 per cent has been taken away from us and a 'lump sum benefit' substituted.

"A large amount of money was found in reserve under the Unemployment Insurance Act and rather than reduce the payments of the employer, temporarily, a 'sickness' benefit was added. . . . As a result of all this, the employee has actually taken a cut in wages and the employer has been forced to increase his taxes (or operating costs) without getting anything in return.

"The members should be told what is going on and have an opportunity to express themselves. Our Grand Lodge officers tell us the only way this law can be changed is to write to our congressmen and they may repeal it. These officers refuse to listen to the members and refuse to abide by the wishes of a majority."

Another petition was submitted to members of Congress in February by more than 2,500 Chicago area employees of the Chicago, Milwaukee, St. Paul & Pacific, the Western Passenger Association and the Western Association of Railway Executives, asserting that "railroad workers feel they were not given an opportunity to express their views or objections to the Crosser Bill. . . . The 79th Congress froze the Social Security tax rate at 1 per cent but incerased the Railroad Retirement tax to 5¾ per cent with absolutely no increase in annuity benefits. The margin of difference between Social Security and Railroad Retirement annuities is very small, yet the rail worker pays 5¾ times more for his. We are sure Congress realizes that the million and a half Class I rail workers desire the roads to operate on a sound, efficient and profitable basis. . . . Their first requirement is steady job security with decent take-home pay and their second, a pension fair to themselves and their families.

Fate of Railroads in Britain and the United States

By ELMER H. SMITH
Senior General Attorney
Illinois Central System

THE railroads are indubitably the outer bastions of the system of free enterprise. When those bastions fall, the whole system is in jeopardy.

Cries are heard today in various quarters of this country for government ownership and operation. These so-called "liberal" weeklies like the "Nation" and Henry Wallace's "New Republic" never miss an opportunity to urge that the American railroads should be socialized. Al Whitney of the Brotherhood of Railroad Trainmen, appearing recently before a House committee, argued for the unfettered and unsheckled right to strike, and thus to starve our people and destroy our industries. He tried it for two days! He said that if an industry is so essential that anyone can deny the fundamental right of its employees to strike, then it is too essential to be left in the hands of private profit-seekers. He looks forward to the time when the unions, operating the railroads through a servile government, will be able to fix their wages without regard to the public interest.

Not one of these advocates of economic despotism has ever understood that what freedom we have in the world today is entirely due to the capacity of the free enterprise system to respond to the needs of a nation at war and the ability of the individuals of that system to wage war.

The Fate of British Transport

In connection with the free enterprise system in the United States, I should like to touch upon the proposal to "Russianize" the transportation system of Great Britain. I suppose that "Socialize" would be a softer word. But I think the word "Russianize" more accurately expresses what it is intended to accomplish. Under the Transport Bill now before the House of Commons, the British government will take over the railroads, barge lines, motor carriers, docks and wharves, and even the railroad hotels, as of January 1, 1948. This bill establishes a vast and highly centralized bureaucracy, of which the Minister of Transport, a political official, is the head and really the source of all authority. The minister is empowered to appoint a Transport Commission whose duties are to provide—and listen to this—"an efficient, adequate, economic and properly integrated system of public inland transport and port facilities for passengers and goods." The Transport Commission will not actually operate these various systems of transportation. They will be operated by five executives, also appointed by the minister: one for the railroads, one for the motor carriers, one for the docks and waterways, one for the London urban transport, and, last but not least, one for the railroad hotels.

The British government will acquire the railroads by exchanging 2½ per cent government stock for the outstanding stocks and bonds, the value of which would be based upon stock exchange quotations during a prescribed period. The physical value and the earning capacity of the British railroads are ignored. According to the London "Economist," the present income from the various classes of railroad securities in Great Britain is £46,000,000. The income, at 2½ per cent, will be £25,000,000. Thus the return to the security holders will be reduced by 44 per cent.

But perhaps, after all, the holders of British railroad securities ought to be thankful for this basis of compensation. The British Trades Union Congress—and this is the body which really governs Britain—said in its last annual report, in dealing with public control of industry: "It appears to be generally agreed in the labor movement that fair compensation should be paid." This sentence suggests that the question whether compensation should be paid when the state takes the property of its citizens is a matter to be determined by agreement of the Socialists who control the destinies of the state. While the report states that the right to fair compensation is recognized in the English law, it concludes with this most interesting and astounding statement: "Any unfairness or inequality that may be found to result by handing over large sums to private individuals may be rectified by taxation."

I am reminded of the answer of an old lawyer for the Illinois Central to what he thought was an unjust claim. "If we are to be robbed, we will be robbed through the forms of the law." There is a great deal of that kind of robbery going on in the world today.

Some of the labor members of Parliament reported that their constituents thought that nothing should be paid to the owners of the British railroads. You will thus see that some of the British Socialists have already learned a lesson or two from their Russian brothers.

This Transport Bill in England contains a great many high-sounding phrases. The rate structure is to be simplified. The various agencies of transportation are to be coordinated. But there is not the slightest hint in this bill as to just how these desirable results are to be brought about. One does not have to be very much of a prophet to predict that government ownership and operation of transportation in Britain will not reduce costs, but that, on the contrary, it will increase them; that the rates will be no cheaper and that the services will be no better, but that, as stated by the former chairman of the Royal Commission on Transport, "Nationalization will not benefit the users of transport"—that is, the public.

What is the real reason lying back of this bill to "Russianize" the British railroads? It simply reflects doctrinaire dogmas of the British Trades Union Congress. It is a part of their program, and, therefore, irrespective of whether the public will benefit, it must be carried out. As one writer put it: "It is the pure milk of the socialist word." The Labor government has taken pains to see that the control of this vast undertaking, with hundreds of thousands of men made employees of the state, will not be lost to the Labor party, for, as I have said, the real manager is the Minister of Transport, a political officer.

The opposition party in Parliament and the British railroads asked the Labor government to institute a public inquiry before passing the bill. But the Labor government refused to do so, secure in a majority in the House of Commons.

This proposal of the British Labor party to operate the British transport system is an experiment that may hold some lessons for this country.

Regulation vs. "Competition"

The free enterprise system in the transportation industry in the United States differs from the free enterprise system which we have in most other industries, in that transportation is subject to regulation. The regulation provided for in the Interstate Commerce

This article is an abstract from an address before the Trans-Missouri-Kansas Regional Advisory Board on March 12.

Act is now recognized as an integral part of a democratic way of life. It is part and parcel of the free enterprise system in transportation.

But the regulatory process itself and the rate-making procedures which the shippers and the railroads have worked out over a period of several decades are now attacked, not by those who use the railroads and pay the freight, not by those who have had wide experience in rates and regulation, but by the U. S. Department of Justice. And the question which this country—and especially its shippers—is now called upon to decide is whether freight rates and charges should continue to be regulated by the commission pursuant to the standards laid down in the act, or whether they should be regulated by the Justice Department through its power to enforce the Sherman Anti-Trust Act.

Justice Department Theory

The Department of Justice, ignoring the principle of rate-making which has been applied by the commission since the first year of its existence, that in the fixing of rates it will not base them upon the railroad most advantageously located or the cheapest to operate, but will consider the entire situation, now contends that the rates of each railroad must be based upon the needs of that particular railroad, and that each rate on each railroad must in some way or other be made competitive with each rate of every other railroad. Under the theory advanced by the Department of Justice, the rate on the New York Central from St. Louis to New York would be different from that on the Pennsylvania, at least until the 30 days had elapsed within which one railroad could meet the rate of its competitor. Long established relationships in rates would be ignored; the revenue needs of the railroads would be cast aside; no consideration would be given to the maintenance of an adequate system of transportation or to the means by which such a system can be achieved. The department does not stoop to such trivial questions as wages, taxes, car supply, or where the materials or money comes from to build cars.

The Department of Justice says, in substance, that railroads have set up a monopoly and that the public is without any protection against that monopoly. No one would ever know from reading the books and papers written by the officers of the Department of Justice that the Interstate Commerce Act existed, that the commission had ever fixed or approved any rates, or that the administration of the act afforded any protection to the shippers of this country. The department has never displayed the slightest understanding of the scope, the purposes, the methods or the extent of regulation.

The department says, in short, that it enforces the Sherman Anti-trust Act and that, if enforcement of the Sherman Act carries along with it the destruction of the Interstate Commerce Act and of the protection which that act gives to shippers, after all that has been done, the shippers can complain to Congress!

Bad Medicine for Shippers

The department further says that the whole procedure of rate-making which the shippers and the railroads have built up over these many years, under which these common problems of rates are discussed and considered through the medium of rate conferences, is now a violation of the Anti-trust Act, and that this procedure must be eliminated. The department proposes to compel the shipper, when he wants a change in freight rates, to tramp from one railroad office to another, for no competing railroads will be permitted to sit down and confer with him on a rate and agree upon a rate that will meet the standards of the act, provide adequate revenues for the railroads, and meet his needs. The shipper has to incur the burden of separately persuading each one of the railroads with respect to the rates that he wants, and each individual railroad must then run the risk of determining whether in the light of the rate structure on that particular commodity, the interests of other shippers, the relationships that may exist in the rates, the effect upon railroad revenues and similar considerations, it will publish the rate.

The result is clear. Every rate in this country will be frozen, and the only changes shippers can get in the rates will be after they have hired a horde of lawyers to file complaints and try cases before the commission and after the commission has entered its orders on those complaints. The department wants to reduce the commission to a state of "administrative paralysis."

The department persists in treating the rate structure of the railroads as if it differed not at all from the price structures of industries whose prices are subject to no regulation whatever. The commission itself said that railroad rates are not a loose aggregation of separately established rates, but a single entity composed of related rates. Rates must not only be reasonable but they must be nondiscriminatory. They must be sufficient, moreover, to enable the railroads to maintain an adequate system of rail transportation.

It is an amazing thing that the Department of Justice, which ought to have some politicians among its members, would so flagrantly disregard the public interest and the uniform views of those who ship and pay the freight. I have never heard of any one shipper being against the passage of the Reed-Bulwinkle Bill. Shippers and shipper organizations, large and small, all over the country, and the interstate and state commissions, have expressed their approval of it. I am sure that the shippers of the United States can make their influence felt if they choose to do so.

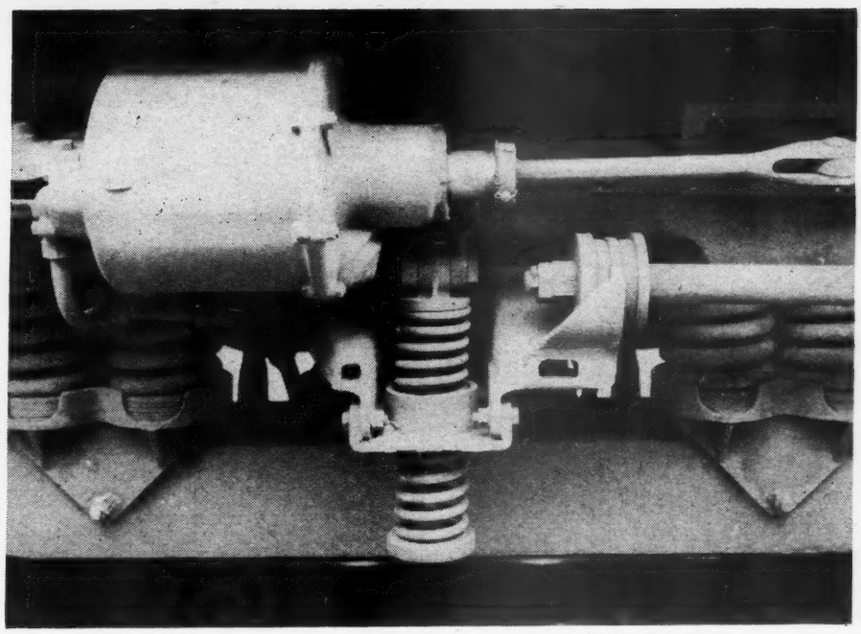
Spencer Spring Suspension

A spring arrangement or device, designed to retard car-body roll and promote smoother riding of railway passenger cars, has been developed by the Railway Products Company, Chicago. It is known as the Spencer Spring Suspension.

This device consists simply of a double-acting spring, with the necessary resilience characteristics, connected between the truck frame and bolster end on each side of the truck and acting to cushion car-body roll by resisting bolster movement both up and down with respect to the truck frame. The location of the Spencer springs at the bolster ends assures a maximum effective torque arm and the springs on both sides of the truck exercise a steadying influence each time there is any tendency for the car body to roll.

Referring to the illustration on the opposite page, the construction of the Spencer Spring Suspension and its method of attachment to a four-wheel truck will be apparent. The device consists of an upper anchor bracket, bolted to the truck frame and pin connected to an upper spring-seat bracket, a central spring-seat bracket bolted to the bolster, and a combination bottom spring seat and nut, with two coil springs inserted between the respective spring seats. The entire assembly is held together at desired spring tension by a 1-in. alloy-steel through-bolt, threaded into the truck-frame bracket at the upper end and into the combination spring-seat nut at the lower end.

The coil springs, made of 5/8-in. round alloy steel, are 4¾ in. in outside diameter and each has an assembled height of 6 in. and maximum travel of 3½ in., or the same as that of the bolster coil springs. The free height is 10 in. for



Spencer Spring Suspension applied to four-wheel truck of a modern passenger car

the top Spencer spring and 11 in. for the bottom spring.

Spencer Spring Suspensions have been operated successfully in test service on several dining, lounge, coach and other streamline passenger cars since 1944 and it is said that a total of about 1¾ million miles of service have been accumulated without requiring any replacement of parts, or other maintenance attention. Coil springs of the same capacity were used under all of the different classes of cars mentioned, thus indicating that only one type of Spencer Spring Suspension is required for present four-wheel trucks under streamline equipment.

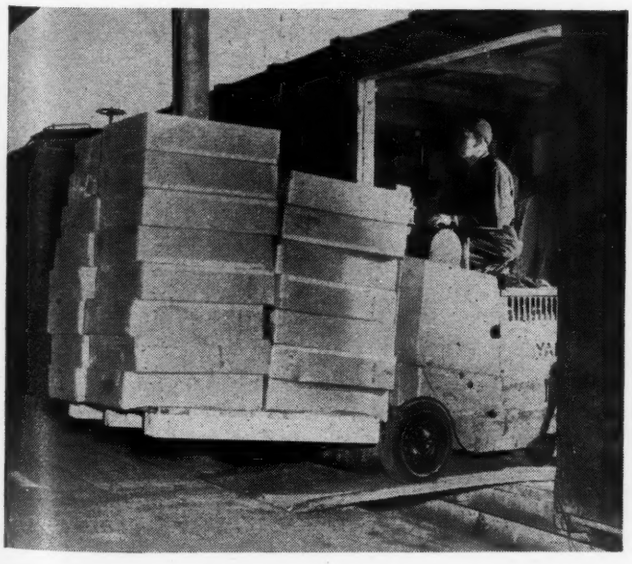
G. N. Tests Pallets for L.C.L.

UNIT-LOADING for less-carload freight has been under test on the Great Northern for the past several months. In an effort to gain the widest possible experience from its experiment, the road has tried out this method of shipment on a wide range of commodities. Since the maximum benefits of unit-loading cannot be realized unless it applies to the entire handling process from factory to consumer, the railroad has carried out its experimental project in close cooperation with interested shippers.

The first palletized l. c. l. movement in connection with the program consisted of two shipments, each comprising nine unit-loads of baled seamless bags weighing together almost 18 tons, from the plant of the Bemis Bag Company, at Minneapolis, Minn., to Minot, N. D., and Williston, respectively. Each of the nine unit-loads in each shipment weighed 1,950 lb. (including strapping and pallet) and consisted of 18 wire-bound bales loaded on a 40-in. by 48-in. wood pallet. At the plant of origin, the bales were strapped to the pallets with six bands of ¾-in. .020 steel strapping furnished by the Acme Steel Strapping Company.

From the factory to the consignee the bags were handled entirely by the mechanized methods made possible by palletizing. They were placed on a motor truck for movement to the railroad's freight depot by a fork truck and a pallet-type Transporter motorized hand truck. At the station at both origin and destination the Great Northern transferred the unit loads with pallet Transporters. It is noteworthy that, at ultimate destination, the latter were carried along on the dray-line trucks with the shipments and were used by the consignees in unloading and storing the commodity.

Consignees of both shipments reported substantial savings in handling costs compared with non-palletized l. c. l. shipments. Loading and handling were supervised by J. J. Retzer, Great Northern's supervisor of merchandise service.



Left—Tests with palletized shipments have covered a wide range of commodities. A Yale & Towne fork-lift truck handles unstrapped cartons. Below—The first palletized l. c. l. shipment on the Great Northern was handled from dray to rail car by a Transporter motorized hand-truck.

The Macon yards are a focal point on the Central of Georgia

A Railroad Changes with Its Territory

Central of Georgia makes improvements to supply transportation to the increasingly industralized area it traverses

THE Central of Georgia traverses Georgia and extends into Alabama and Tennessee like the fingers of a hand. Virtually all of the territory it serves was affected by war activities. As a result, it has become increasingly industrialized and promises to grow along those lines. In keeping with the times, the C. of G. has made large improvements; has speeded up passenger and freight schedules; and is developing with the area to which it supplies rail transportation.

This spring it will inaugurate two new coach streamliners, one of which will make two round-trips daily between Columbus, Ga., and Atlanta, 117 mi. a trip, or 468 mi. a day, and the other, one round-trip daily between Atlanta and Savannah, 294 mi. or 588 mi. daily. In addition, the railway continued to participate this past winter in the handling of fast sleeper and coach trains on through Chicago-Florida runs.

Similarly, its freight schedules have been improved, so that over-night service is supplied between most points on the entire railway, while through freight schedules in connection with other lines have been comparably adjusted.

The improvement program on the Central of Georgia proceeded during the war as rapidly as possible under the circumstances, but at an increased rate during 1946. Among the more important projects completed last year was the construction of a large, modern shop at Macon, Ga., for the repair of Diesel locomotives, which includes a 90-ton electric drop table. Also, a 60-ton electric drop table was installed at the engine house at Macon for the use of steam locomotives. New facilities for supplying fuel oil and water to Diesel locomotives were placed in service just outside the Macon station. At Millen, Ga., an electrically-operated cinder conveyor, serving three tracks, was installed, and an additional standpipe erected. A creosoted water tank of 50,000-gal. capacity was installed at Tennille, Ga., and a similar 20,000-gal. tank at Midway, Ala. Facilities for watering Diesel locomotives were built at Albany, Ga., and Atlanta.

One of the two-unit, 4000-hp. Diesel locomotives on the "Dixie Limited" at Macon

A number of communications improvements were made. A message circuit was completed between Columbus and Cedartown, Ga., and an automatic telephone system, with signal horns, was installed in Macon yard. A teletype system connecting Savannah, Macon, Atlanta and Columbus was put in.

In the way of roadway improvements, 36 mi. of new rail were laid and 8 mi. of relay rail to replace lighter steel. A rail detector car was run over nearly 2,000 mi. of track. Several spring switches and power switches were installed.

Meanwhile, the mechanical depart-

ment was re-tooled on a large scale. Modern machinery was installed to replace old machine tools and to produce more efficient work. A considerable program of improving steam locomotives was undertaken.

Development Department

The development department of the Central of Georgia has assumed such importance that its chief bears the title of vice-president. The remainder of the official staff of the department consists of a general industrial agent and two industrial agents with headquarters at Atlanta; a director and assistant director of agricultural development; agricultural agents; a forester; and an agronomist. The department has been extremely active in developing the resources along the line and assisting the factories and the farmers located there, as well as disseminating information to other sections of the country. Many new industries have been induced to locate along the lines of the road. During 1946, for example, 57 new industry tracks were installed. The industrial possibilities of the area served have been studied thoroughly as to available plant sites, labor conditions, sources of raw materials and other pertinent data, which are made available to interested industrialists.

Diesel Operations

For some years, the C. of G. has been purchasing Diesel switching locomotives, and it now has a fleet of 22 such units—of 600, 660 and 1,000 hp. Of the total, 14 are operated on the basis of continuous service, or three tricks daily—3 at Atlanta, 1 at Albany, 3 at Columbus, 4 at Macon and 3 at Savannah. The other 8 units are all operated two tricks daily. There is no one-trick Diesel switcher assignment on the railroad. In this manner, the maximum utilization of the units is obtained, consistent with the amount of switching to be done in the various terminals.

The C. of G.'s overall problem in operating passenger trains is unusual. As a link in several of the main routes between the Middle West and Florida, the road handles numerous heavy through passenger trains between northern and southern connections, mainly for relatively short distances and at high speeds. Between Atlanta and Albany, 209 mi., it is the route of the Chicago-Florida "Dixie Flyer" and "Dixie Limited," as well as the "Southland" and the "Flamingo." In addition, the "Seminole" and a coach streamliner, the "City of Miami" are handled between Birmingham and Albany, 251 mi. These are all-year-'round trains. An additional fast through passenger train—the "Sunchaser"—has been added to operate on an every-third-day basis during the winter season.

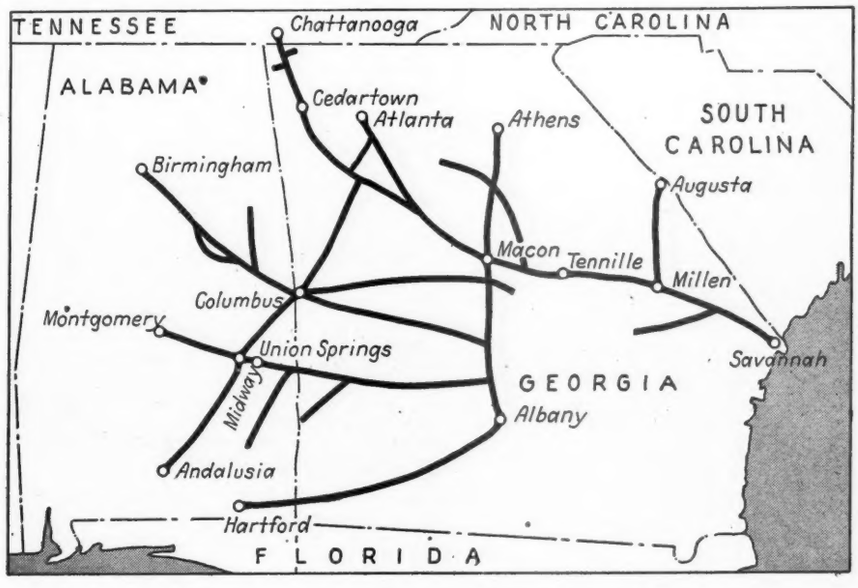
Fast, powerful steam locomotives of the capacity necessary to handle these through trains during the Florida "season" would be uneconomical during the "off" season, when there is no opportunity to use them efficiently in the local passenger service operated by the C. of G., which in addition to head-end cars and coaches comprises two on-line sleeping cars between Atlanta and Savannah, and a sleeping car line between Atlanta and Panama City, Fla., in connection with the Atlanta & St. Andrews Bay. For this reason, the management decided upon the purchase of Diesel locomotives, and the railway now has a fleet of eight 2,000-hp. Diesel passenger locomotives built by the Electro-Motive Division of General Motors Corporation, and will shortly receive delivery from the same company of four additional units of the new F-3 1,500 hp. type, suitable for use in either freight or passenger service. In this manner, it will be possible during the light traffic season to utilize these units on the lighter trains or in freight service, without waste of power.

Since its inception some years prior to the war, the "City of Miami" has been operated with a Diesel locomotive running through to and from Chicago. When the new Columbus-Atlanta and Atlanta-Savannah streamliners go into service, they will be powered by one-unit Diesels, which will make 468 and 588 mi. daily, respectively, or 3,276 and 4,116 mi. a week. Meanwhile, the present fleet of passenger units has been worked into the winter schedules to obtain the maximum utilization on the fast, heavy trains operated.

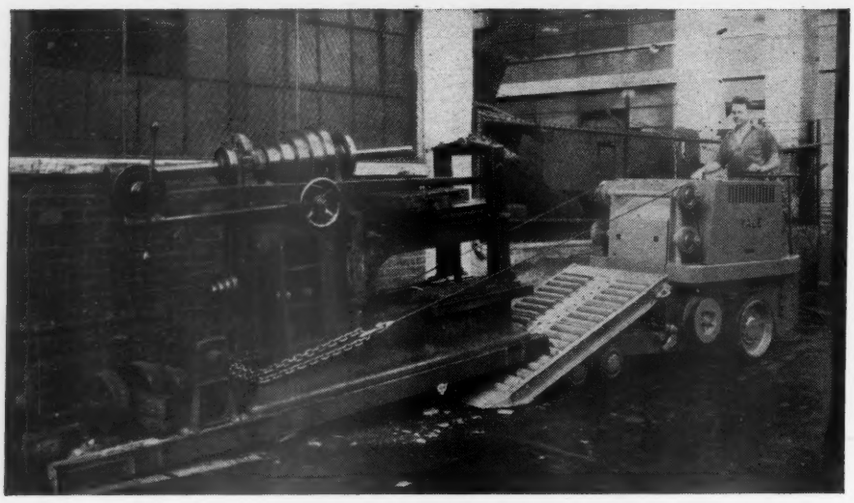
Since, as will be seen from the map, Macon is a focal point from which the lines of the C. of G. radiate in several directions, the new Diesel shops are located there, and operations are so arranged that the Diesels shuttling back and forth over the 209-mi. line between Atlanta and Albany (via Macon) are used in short hauls from either Atlanta to Macon, 103 mi., or Albany to Macon, 106 mi., when it is necessary to bring them in to the Macon shops for periodic inspection or for repairs. In this manner, all deadheading of Diesel locomotives to the shops is avoided. Another advantage of the central location of the Diesel shops is that all fueling of Diesel road locomotives is done there, and it was necessary to build Diesel fueling facilities only at one point.

The locomotives receive only running inspection at Atlanta and Albany and, as a matter of fact, are turned so fast that there would be time for no other attention at those points without taking the locomotives out of the regular service pool. By taking advantage of schedules to the utmost extent, the present fleet of eight units does a tremendous amount of work on 209 mi. of railroad, and their average monthly mileage in the winter approaches 20,000 mi.

As previously stated, the new Macon Diesel shop is equipped with a 90-ton electric drop table. It has three pits, the tracks of two of which are long enough to take three passenger units at one time and permit efficient work on each of them simultaneously. The other track has space for two passenger units and is used largely for the repair of the railway's fleet of Diesel switchers, although passenger units may be repaired there, if necessary. The shop incorporates the latest features developed for Diesel locomotive repairs.



The Central of Georgia traverses Georgia and extends into Alabama and Tennessee like the fingers of a hand



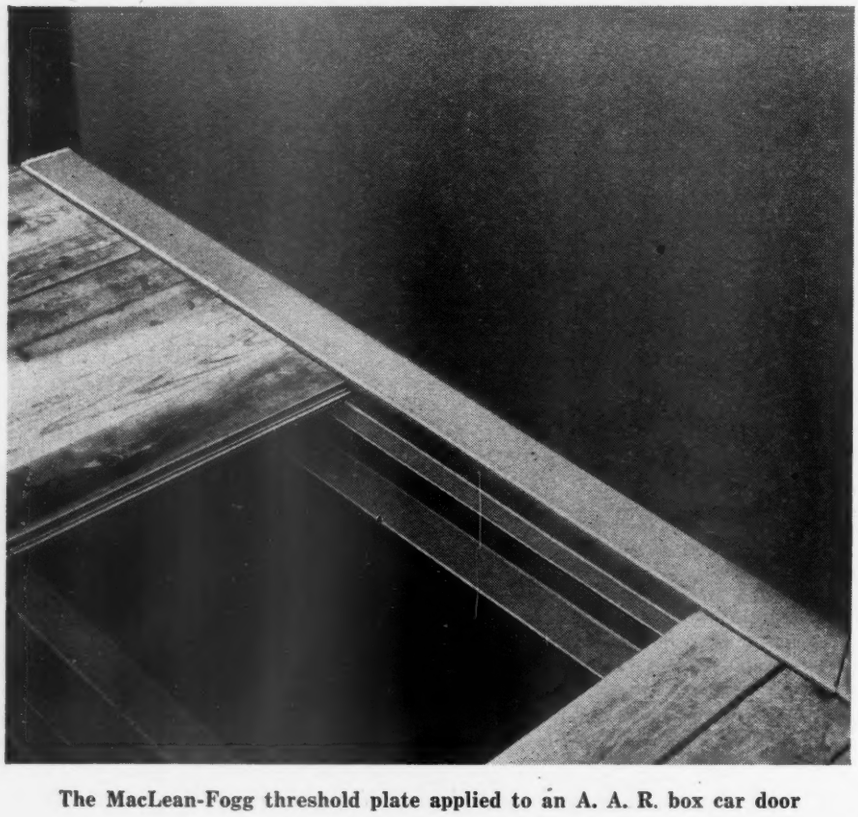
Yale roller-ramp truck

Threshold Plate

The "M-F" Threshold Plate is a formed metallic section which permits the replacement of floor boards without removing the threshold plate. It is permanently welded in place in the doorway of a box car and creates a box section that increases the strength of the side-sill member in the doorway.

The floor boards do not pass under the threshold plate and consequently may be removed and replaced easily and quickly. When boards require replacing, only those that are defective have to be removed; the threshold plate, bolts and nuts, and boards in good condition do not require removal.

This product of the MacLean-Fogg Nut Company, 2649 N. Kildare avenue, Chicago 39, is applied by laying it in the doorway and welding at intervals along its inside edge and to the door posts. If the side sill is of sufficient width, the floor boards rest on the side sill and are clipped or bolted to the side sill completely independent of the threshold plate. Where the side-sill leg is narrow the threshold plate itself is extended to support the floor boards which are clipped or bolted to the plate. Once applied, it is said that this threshold plate never requires removal and that water can not get under the plate to rot the board ends.



The MacLean-Fogg threshold plate applied to an A. A. R. box car door

Heavy-Duty Roller-Ramp Truck

A new, heavy duty, gravity tilting-platform, electric truck, said to be adapted to moving heavyweight packaged materials or locomotive parts, has been introduced by the Yale & Towne Manufacturing Co., 4530 Tacony st., Philadelphia, Pa. Mounted on six wheels and actuated by worm wheel steer, the truck is designed for manipulation of massive machinery and crates into carrying position by means of an integral roller-ramp and cable-draw system.

The roller platform falls into ramp position when unlatched, and winch-drawn cables which encircle the load to pull it onto the ramp, cause the ramp to rock back into the horizontal transporting position. Three pulling levels may be employed for the cable lines, the lowest being direct from the cable drum for dense or heavy loads. The higher idler sheaves are used on loads such as machinery or bulky crates.

What Electronics May Do on Diners

(*Continued from page 791*)

desire to maintain personnel, it is fair to ask: "Can they cook and freeze their own precooked foods?" I would venture the opinion that they can do the job by observing each and everyone of these nine precautions:

1. Be sure to employ competent technical personnel.
2. Be sure to subject each frozen precooked item to storage tests for a period at least 50 per cent longer than it is conservatively estimated they will be stored before use.
3. Be sure to maintain hospital cleanliness and sanitation in kitchens and plants.
4. Be sure to avoid freezing in makeshift equipment; consult a reliable refrigeration company specializing in such equipment.
5. Be sure to keep finished products in zero storage with a minimum variation of temperature before issue.
6. Be sure to keep products solidly frozen during distribution to points of use.
7. Be sure to instruct personnel fully in the use and heating of these products.
8. Be sure to provide adequate packaging protection; get sound advice.
9. Be sure to start with high-quality ingredients.

GENERAL NEWS

"Erroneous" Car Story Challenged by Faricy

A. A. R. president replies to charges of discrimination against West

William T. Faricy, president of the Association of American Railroads, has told the editor of the Los Angeles (Cal.) Daily Times that the newspaper's recent article "alleging eastern conspiracy to halt development of the West through control of car movements" by the A. A. R. was "based on erroneous use of incomplete and partial statistics and complete misunderstanding of normal car movements and today's traffic situation." Mr. Faricy's protest was embodied in an April 12 telegram which identified the article as one the Times published April 10 under a New York date line.

"There is no effort by A. A. R. to keep facts of this situation from shippers," the telegram reads. "Indeed the only figures mentioned in your so-called nationwide survey were taken from public reports of the Car Service Division, A. A. R., made every two weeks, widely distributed and available to any inquirer.

Partial Figures—"You give figures as to location of cars on lines of certain railroads. Had you selected other roads the picture would have been different. For example, of the eight railroads reaching the Pacific coast, five have more freight cars on line than they own, the ratio ranging up to 209 per cent. One of these five is the Union Pacific which you erroneously state has 82 per cent of ownership on line. It has 101 per cent."

Mr. Faricy proceeded to point out that "those familiar with the movement of traffic in the United States know that at all times the preponderance of loaded movement is from west to east." He added that the four roads which the Times article "described as having been bled white of freight cars," have loaded 40,000 more cars of freight in the past five weeks than in the same weeks last year.

"Railroads which predominantly originate traffic do not need, rarely have, and do not want 100 per cent or more of car ownership on line," the A. A. R. president explained. "As evidence of normal conditions consider that in March, 1939, before the war and at a time when there was a surplus of 225,000 freight cars in the country, all roads in the Western district had 98½ per cent of ownership on line as against 98.6 per cent at present, and all eastern roads 101.5 per cent, the same as at present."

Further evidence that the West "is not discriminated against" was found by Mr. Faricy in figures showing that, during the first quarter of this year, the western lines, which own only 35.4 per cent of all cars in the country, loaded 37.9 per cent of all carloads. "Furthermore," he added, "western roads moved their loads an average distance of more than 300 miles, as against an average haul in the East of approximately 175 miles. In short, western railroads got, in the first quarter of 1947, relatively more use of the national freight-car supply, both in number of loads and in length of haul, than roads of the East.

"The fact is that the available car supply is well distributed throughout the country. For the last week in March, the average daily shortage in all districts was 33,099, of which 13,279, or 40 per cent, were in the Western district. This should be contrasted with the situation in the last general car shortage in 1922, when the existing machinery for redistribution of cars, which your article so unwarrantably and unfairly misrepresents, was not in existence. At that time, instead of 40 per cent of the shortage, 65.6 per cent was in the West. Present shortages in West and East are almose exactly the same in proportion to ownership of cars."

(*Continued on page 807*)

McCarthy, Evans to Head Reorganized D. & R. G. W.

Wilson McCarthy, co-trustee of the Denver & Rio Grande Western since 1935 and president and chairman of the board of the Denver & Salt Lake, was elected president of the reorganized D. & R. G. W. at Denver, Colo., last week. John Evans, president of the First National Bank of Denver, was elected chairman of the road's board of directors and chairman of the escrow trustees. Henry Swan, vice-president of the United States National Bank in Denver, and also co-trustee of the road since 1935, was elected a director and head of the finance committee.

The elections followed a consummation order and final decree issued in the U. S. district court at Denver, placing in effect the road's long-contended reorganization plan. Edward A. West, general manager, was elected also a vice-president. R. K. Bradford, executive assistant to trustees, and Fred C. Hogue, general traffic manager, were elected vice-presidents. Also elected were 17 directors, including 11 residents of Colorado, four of Utah and one each of North Dakota and New York.

Tobey's Case Against B. & O. Loan Extension

Senate committee counsel and Clay condemn arrangement with R.F.C.

The Senate committee on banking and currency heard extensive testimony last week on its investigation of the extension until 1965 of a Reconstruction Finance Corporation loan in excess of $80 million to the Baltimore & Ohio. Inquiry into the B. & O.'s relations with the R.F.C. marked the start of the committee's consideration of proposals to extend the life of R.F.C. beyond June 30. The committee, following two days of hearings, recessed April 11 until "further notice."

R. D. L'Heureux, committee counsel, and the first witness to testify with respect to the transactions between the R.F.C. and B. & O., presented a "memorandum of the prima facie case" in which he charged that a so-called "Jones group," headed by Jesse H. Jones, former chairman of the R.F.C. and also former Secretary of Commerce, "gained effective control" of the B. & O. (1) by the accession of former government officers in the group to key B. & O. positions and (2) by virtue of the influence resulting from the holding by the R.F.C. of an $86 million note owed by the B. & O. and due "in a short period of time."

In addition to Mr. Jones, others identified by Mr. L'Heureux as members of the "group" included Stewart McDonald, chairman of the B. & O.'s executive committee, and former deputy federal loan administrator under Mr. Jones; R. L. Snodgrass, vice-president in charge of finance, B. & O., and former assistant general counsel of the R.F.C.; C. B. Henderson, who resigned April 9 as chairman of the R.F.C.; J. D. Goodloe, former R.F.C. general counsel and Mr. Henderson's successor in the chairmanship; and F. L. Baukhages, general solicitor of the B. & O., and former R.F.C. counsel.

R. F. C. Men on B. & O.—According to the committee counsel, Messrs. McDonald, Snodgrass, Baukhages and C. M. Clay, former general solicitor of the B. & O. and former member of the R.F.C.'s legal staff, became holders of executive positions on the B. & O. after an agreement by Mr. Jones to extend from 1939 to 1944 a loan of "some $85 million of R.F.C. funds."

"The record shows, however," Mr. L'Heureux testfied, "that upon becomng entrenched in the management of the B. & O., the Jones group began to worry about the possibility of losing their control in 1944. The event that threatened this loss was the forthcoming November, 1944, presidential election. To insure against this

event, the Jones group conceived the idea of effecting a fictitious bankruptcy. Under Section 77 of the Bankruptcy Act, it was almost inevitable for the incumbent managements to lose their control upon profession of bankruptcy. The Jones group needed a new bankruptcy law that would not carry this risk but would effect the purposes of their plan. They found this law in Chapter XV of the Bankruptcy Act, under which the B. & O. had effected a plan of reorganization in 1939, but which law had expired in 1940. . . .

"The record shows that Mr. Snodgrass, ostensibly acting as assistant general counsel of the R.F.C., appeared on August 12, 1942, before a subcommittee of the Senate committee on interstate and foreign commerce, [of which President Truman was then a member], and testified in favor of reenactment of Chapter XV. He testified that he appeared on behalf of Jesse H. Jones and the R.F.C. The R.F.C.'s current interest in the proceedings, Snodgrass told the subcommitttee . . . was largely that of a moneylender to a Colorado railroad company. The record further shows that the subcommittee was led to believe that the expired law had satisfactorily solved the B. & O.'s financial problems and that this was one of the major arguments used to persuade Congress to re-enact it for the use of other railroads. No hint was given to the subcommittee that the B. & O. might again be an applicant under the statute if reenacted. Snodgrass did not reveal to the subcommittee that prior to giving his testimony, ostensibly as a government official, he had accepted the position of vice-president in charge of finance of the B. & O. at a salary more than double his government salary."

Debt Reduction Criticized — Mr. L'Heureux also asserted, among other things, that (1) the B. & O. deliberately diverted in 1943 and 1944 approximately $31 million of its net profits from payment of the R.F.C. loans, due in August and November, 1944, to the purchase of various B. & O. bonds maturing in the years 1948 to 2000, a diversion which Mr. L'Heureux said was done with the knowledge and consent of Mr. Jones and the R.F.C.; (2) B. & O. directors cancelled in 1944, at the instigation of Mr. Snodgrass, $9 million of first mortgage and other bonds, thus making it impossible to sell them and apply the proceeds toward repayment of the R.F.C. loans; and (3) Mr. Snodgrass furnished to the Interstate Commerce Commission in February, 1945, an underestimate of approximately $50 million of the cash and government bonds which would be available to the B. & O. at the end of the year, thus obtaining approval required under the law from the I.C.C. before the R.F.C. commitment to the plan could be made final.

Mr. L'Heureux also asserted that the secretary of the B. & O. "doctored," on the instruction of Mr. Snodgrass, the minutes of the B. & O.'s executive committee meetings so as to eliminate therefrom certain references to the impending bankruptcy proceeding "which might prove compromising to the B. & O. if subpoenaed," and that in December, 1944, after the announcement of the B. & O.'s "bankruptcy," Mr. McDonald purchased 3,000 shares of its stock for his personal account.

B. & O. Officers Bought Stock — "Sometime earlier, but after coming to the B. & O., Mr. Snodgrass purchased some 2,000 shares of the stock," the witness added. "This stock has gone up in value more than any other security of the B. & O. Wall street speculators have made a huge killing in B. & O. securities, amounting to tens of millions of dollars. The R.F.C. alone has had its position impaired to the extent of an estimated $15 million decline in the value of the collateral securing its loan since the court approval of the plan. Today the R.F.C. loan is frozen, and it cannot be sold without a loss of several million dollars. Meanwhile, Messrs. McDonald, Snodgrass, et al, who were put into the B. & O. to protect R.F.C.'s interests, have securities on which they can make a personal profit while the R.F.C. is holding the bag to the extent of $80 million.

"In 1939, the B. & O. and the R.F.C. assured the court there would be no need of a further reorganization or bankruptcy in 1944. Since the end of 1939, to the end of 1945, the B. & O. has made more than $110 million in net profits, after all taxes. This statement is sufficient by itself to indicate the absurdity of the allegation that the B. & O. has been unable to pay off or meet in any way except through bankruptcy the $80 million of loans held by the R.F.C. . . . Every major financial estimate on the basis of which court approval was secured has proven false. The R.F.C. may still by prompt action recover its loan without loss, but to do so would expose the malpractice of the Jones administration and its nominees in control of the B. & O."

The committee also heard the testimony of Mr. Clay, who declared that he resigned a $20,000-a-year position as general solici-

B. & O. Says It Can't Defer Adjustment Plan

R. B. White, president of the Baltimore & Ohio, this week advised J. D. Goodloe, chairman of the Reconstruction Finance Corporation, that the B. & O., by virtue of a court decree, is unable to defer its financial readjustment plan, as suggested April 12 by Senator Tobey, Republican of New Hampshire and chairman of the Senate committee on banking and currency, in a letter addressed to Mr. Goodloe and transmitted by the latter to Mr. White.

The Tobey letter, as noted elsewhere in this issue, also urged the R.F.C. to defer the extension of its loan of approximately $80 million to the B. & O. until the committee has "arrived at a conclusion with respect to the validity" of the R.F.C.'s participation in the B. & O. plan. The committee chairman submitted his proposals to Mr. Goodloe following two days of hearings last week on the financial relationships between the R.F.C. and the B. & O.

Mr. White said that Senator Tobey's letter had been considered at a meeting of the B. & O.'s executive committee, which authorized him to advise Mr. Goodloe of the B. & O.'s position.

"The Baltimore & Ohio plan, as approved and ordered consummated by the court, is an entire and indivisible plan embracing not only the claim of the R.F.C., but the claims of the holders of bonds issued under five separate mortgages of the company," Mr. White said in part. "The plan, therefore, is no longer executory in any of its parts for under the terms of the court's decree, which the Supreme Court of the United States declined to disturb, it is binding and mandatory upon the R.F.C. the same as it is upon the company and every other claimant whose claim is provided for in the plan.

"Pursuant to the mandate of the decree, the company has already carried out and consummated its requirements as to a substantial part of the affected claims of creditors. In these circumstances and in view of the entire and indivisible nature of the plan and decree, the company now has no alternative but to proceed in accordance with its terms with the remaining acts which the decree requires. Any other course on the company's part, it is advised by counsel, would be in contempt of the decree and beyond the legal right of the company in the circumstances.

"Aside from the decree and its binding effect, the plan is, in fact, an agreement between this company and the many thousands of creditors, including the R. F. C. The company's purpose, therefore, must be to fulfill its part of this agreement."

In making public his reply to Mr. Goodloe, Mr. White issued a statement saying that charges made at the hearing by "one witness" [presumably C. M. Clay, former general solicitor of the B. & O.] with respect to the propriety of the R.F.C.'s action in accepting the readjustment plan of the B. & O. in 1944 were identical to the allegations made by the same individual "more than 18 months ago in the hearings before the United States District Court, which approved and confirmed the plan." Mr. White's statement added that the court "completely exonerated" the B. & O.

"Since temporary adjournment of the . . . hearings, we have searched the transcript of the statement made to the committee and have been unable to find a single assertion that was not made in and considered by the United States District Court," the White statement continued. "That court's record was, in its entirety, before the Supreme Court when the Supreme Court refused to review the judgment reached by the District Court.

"We therefore feel confident that when members of the banking and currency committee have had the time fully to examine the records, all of which are available to them by voluntary action of the company, they will find themselves in unanimous and complete accord with the District Court and the Supreme Court of the United States."

tor of the B. & O. because "the bankruptcy was fraudulent and dishonest from any angle you look at it." Mr. Clay had been a member of the R.F.C.'s legal staff from 1932 to 1941, when he resigned to join the B. & O. He said that his salary with the R.F.C. was $10,000 yearly. "The only basis of the bankruptcy is the alleged inability of the B. & O. to meet the loan of some $80 million which it owes to the R.F.C., and that is the only debt of any consequence which the road has maturing before July 1, 1948," Mr. Clay stated. "Within a year prior to the allegation that it could not meet the R.F.C. debt—recall this allegation was made in 1944—the B. & O. with the knowledge and the acquiescence of Mr. Jones and the R.F.C., diverted to the retirement of debts maturing after the R.F.C. debt some $31 million which was available to reduce the R.F.C. debt. With this money, they purchased bonds, some of which were still in the B. & O. treasury at the time the directors of the B. & O. concluded to go into bankruptcy. . . . The B. & O. deliberately cancelled these treasury bonds so as to deprive the R.F.C. of the benefit of them. . . ."

Sees R. F. C. "Holding Bag"—Mr. Clay said that extension to 1965 of the B. & O.'s debt to the R.F.C. will leave the R.F.C. "holding the bag of a frozen loan of $80 million." "I think that Mr. Jones and the R.F.C. in the last analysis were trying to help the B. & O.," he continued. "The B. & O. management was concerned that if it did not work out the reorganization in 1944, control of the R.F.C. would pass to hands less friendly to the B. & O. than Mr. Jones."

Mr. Clay said that the R.F.C., as creditors, and the management of the B. & O. were both "parties" to what he termed the "fraudulent bankruptcy," adding that court approval of the proceeding was "disgraceful." Mr. Clay said that he was a "great admirer" of Mr. Jones, but added that "power corrupts any man." "I don't think there should be in the United States the unlicensed power to put through a deal such as we have here," he commented.

"It's a stockholder's plan," he continued. "The bondholders take the rap. The management of the B. & O. will gain and the R.F.C. will be stuck with $80 million. I'm more concerned with principles than personalities."

Mr. Clay said that the B. & O. plan sets up a "perfect speculative mechanism." "If you have a dishonest management, there is temptation that they will declare dividends on the stock in years which they should not," he continued, adding that since the court's approval of the B. & O.'s plan of reorganization last year the price of B. & O. securities has been going down progressively."

Mr. Clay asserted that the "whole integrity" of reorganization proceedings has been lowered professionally" as the result of the B. & O. "going into court on a frame-up like this in such a gigantic scheme." "If it were a Jew clothing store, the court would cite the officials that perjured themselves and put them in jail," he said.

R. F. C. a "Poor Collector"—Describing the B. & O.'s by-laws as "archaic" and its charter as a "complete autocracy," Mr. Clay contended further than the B. & O. was taking advantage of every favor the R.F.C. would give them. At the same time, he charged that the R.F.C. made no "real attempt" to collect any money to reduce the debt in any substantial amount, despite the wartime profits of the B. & O.

Mr. McDonald told the committee it was a policy of Mr. Jones of "having his men on each railroad where the R.F.C. had big loans" and that Mr. Jones had been instrumental in his joining the B. & O. He said that the extension of the R.F.C. loan was essential to the financial structure of the road at the time it was granted.

Mr. Henderson and W. W. Sullivan, chief examiner of the R.F.C.'s railroad division, testified in defense of the R.F.C. loan to the B. & O. They explained that the R.F.C.'s board of directors had looked to Mr. Jones for advice, assistance and recommendations with respect to railroad loan matters, adding that Mr. Jones handled all railroad transactions at the time of the B. & O. loan.

Under cross-examination by Senator Tobey, Republican of New Hampshire, and chairman of the committee, Mr. Henderson denied that the R.F.C. was a party to any "fraudulent bankruptcy" of the B. & O. He declared that the loan was in the best interests of both the R.F.C. and the B. & O. and that the extension enabled the B. & O. to retire $100 million of outstanding obligations at 60 cents on the dollar. At the same time, he said, he believed the new bonds to be issued to R.F.C. to cover the loan extension were not "marketable or salable" at the present time.

"Sound Practice"—Mr. Henderson also testified that Mr. Jones "dominated" the B. & O.'s dealings with the R.F.C. and that the B. & O., in reducing its indebtedness, was following a sound practice. He also introduced a letter written by Mr. Jones, as a private citizen, in which the latter informed the special three-judge court which approved the B. & O.'s debt adjustment that the plan before the court was prepared by the road itself and without any direction from members of the R.F.C.

The hearing was marked by allegations by Chairman Tobey, among other things, that there was "thimble-riggery and humbuggery" in the loan negotiations and "skullduggery in high finance." He also criticized Mr. Snodgrass for allegedly concealing his resignation from the R.F.C. when appearing before the Senate subcommittee at the 1942 hearings on proposed changes in railroad bankruptcy legislation. Senator Tobey said that he, too, was a member of the subcommittee of which Senator Truman was a member, but had not been informed of Mr. Snodgrass' intentions of subsequently joining the B. & O. [Mr. McDonald had testified that Mr. Truman was so told.]

Calls R. F. C. a "Dummy"—Senator Tobey, who indicated that Mr. Jones would appear voluntarily at the hearings, also asserted that the negotiations between the R.F.C. and B. & O. were "unethical" and clearly evident of "collusion." In the latter respect, he said that a letter from the R.F.C. to the B. & O., in which the legal basis for the roads reorganization was outlined, was practically the same as one sent to the R.F.C. by Mr. Snodgrass several days sooner. The committee chairman said that the letters disclosed that the R.F.C. was "merely a dummy using a letter drafted by the B. & O." He charged that the exchange of correspondence demonstrated "collusion and phoniness in the whole business."

Senator Tobey also asserted that the B. & O. has made no attempt to "clean up" its debt to the B. & O. adding that he could see no reason why the loan should be "carried on ad infinitum."

On April 14 Senator Tobey made public a letter which he sent to Mr. Goodloe urging the R.F.C. to defer its loan extension to the B. & O. "until this committee has arrived at a conclusion with respect to the validity" of the R.F.C.'s participation in the B. & O.'s readjustment. The R.F.C. said that it has forwarded to the B. & O. a copy of the letter in which Senator Tobey said he felt assured that the R.F.C. "should have the cooperation of the railroad . . . particularly since under the court decress the court reserved jurisdiction to make such alterations in the decree."

"I have considered the letter of March 31, 1947, from Mr. Henderson . . . and I am convinced that the claim of the R.F.C., that the present plan does not involve an extension of the R.F.C.'s loan to the railroad, is "an afterthought," he said. "Throughout the negotiations prior to the publication of the plan your records indicate that all R.F.C. officials and B. & O. officials involved repeatedly referred to the arrangement as an extension."

Mr. Goodloe, who also is expected to testify when the hearings are resumed, made public on April 11 his "comments" on the April 10 hearing in the form of a 5-page statement. This said in part that an audit conducted by the General Accounting Office reveals no "crime and corruption anywhere in the R.F.C. as Mr. L'Heureux would have this committee . . . believe exists in the B. & O. case."

Mr. Goodloe charged that Mr. L'Heureux was in error in his statement that the R.F.C. failed to appear before the I.C.C. in connection with the B. & O.'s adjustment plan. "The facts are R.F.C. appeared by counsel at the I.C.C. hearing," he said. "The further statement that 'Goodloe was one of Mr. Justice Reed's assistants in the R.F.C. when Mr. Justice Reed was general counsel' is a correct statement, but quite immaterial to any issue in this case," Mr. Goodloe concluded. "Surely the statement could not have been made to suggest improper conduct on the part of a member of the Supreme Court. On the other hand, he

Gerard to Leave Lehigh

Stockholders of the Lehigh Valley, meeting in Bethlehem, Pa., on April 15, were informed in a statement from F. R. Gerard, president of the road, that because of ill health he did not wish to present himself as a candidate for re-election as president. Mr. Gerard said, however, that he was agreeable to continuing in the office of president until his successor had been selected and elected by the board.

did not hesitate to impugn by direct statement one of the members of the special . . . court that approved the B. & O. 1944 adjustment plan."

Of Mr. Clay's testimony before the committee Mr. Goodloe said it was no different other than being "more vehement" than that which Mr. Clay gave in the court proceedings on the B. & O.'s plan in September, 1945.

Increased Commutation Fares Sought by Jersey Central

The Central of New Jersey announced April 15 that it has filed with the Interstate Commerce Commission and the New Jersey Public Utilities Commission a complete new rate structure for commutation fares on its lines. It said that the proposed tariffs would "raise rates in most instances but reduce them in some." The C. of N. J. was not a party to the Eastern roads' joint petition for authority to increase commutation fares.

According to H. E. Yerkes, passenger traffic manager, the new rate structure would give the road between $750,000 and $900,000 yearly in additional revenues. He said that the road operated its passenger service at a loss of $7,659,942 in 1946.

Mr. Yerkes stated that the new rate structure was devised in part to meet a suggestion made by the New Jersey commission to the I.C.C. that present differences between interstate and intrastate commutation fares be eliminated. He added that under the proposed tariffs, interstate and intrastate fares for the same distances will be equal, except in certain territory served jointly with the Pennsylvania.

Mr. Yerkes named increased operating costs as the basis for the road's proposed hike in commutation fares. At the same time, he asserted that the increased revenues to be realized from the new tariffs would enable the road to purchase additional Diesel-electric passenger locomotives. "Since gaining an increase in interstate commutation rates a year ago," he said, "we have placed three Diesel-electric passenger locomotives in service."

Equipment of New "Empire Builders"

The accompanying list of materials and equipment supplements that on page 741 of the April 12 *Railway Age* in the article descriptive of the first postwar transcontinental streamliners, the "Empire Builders" of the Great Northern and Chicago, Burlington & Quincy.

Supplementary List of Materials and Equipment on the New "Empire Builder" Cars

Linens	William Liddell & Co., New York
Silver	International Silver Co., Meriden, Conn.
Chinaware	Onondaga Pottery Co., Syracuse, N. Y.
Glassware	Owens-Illinois Glass Co., Toledo, Ohio
Smoking stands	Precision Metal Workers, Chicago
Card chairs, folding	Clarin Manufacturing Co., Chicago
Stainless-steel metal trim; metal moldings	Brasco Manufacturing Co., Harvey, Ill. Pyramid Metals Co., Chicago Weirton Steel Co., Weirton, W. Va.
Mirrors and decalcomanias	Cadillac Glass Co., Chicago Meyercord Co., Chicago
Kitchen and lunchroom dishwashers, Surgex	Stearnes Co., Chicago
Kitchen, pantry, and buffet sinks	Chicago Faucet Co., Chicago
Tanks	Chicago Steel Tank Co., Chicago
Faucets and drains	Imperial Brass Manufacturing Co., Chicago
Air-pressure water tanks	Scaife Co., Oakmont, Pa.
Levelometer	Liquidometer Corp., Long Island City, N. Y.
Pumps	Aurora Pump Co., Aurora, Ill.
Door checks	Norton Lasier Co., Chicago
Motor-generator converter, sleepers	Janette Manufacturing Co., Chicago
First-aid cabinets	Bauer & Black Div., Kendall Co., Chicago

Illinois Central's "City of New Orleans" Makes Press Run

On April 14, the Illinois Central's new "City of New Orleans" streamliner was exhibited to about 100 representatives of the press, railroad men and equipment builders by means of a special run of 160 miles from Chicago to Gilman, Ill., and return, with a brief stop at Manteno, Ill., for picture-taking purposes. The run gave observers an excellent opportunity to get a first-hand impression of unusual features in the train, which is colorful, attractive and comfortable in riding even at a speed of 100 m.p.h.

The train is one of two identical 14-car trains to be operated in opposite directions each day between Chicago and New Orleans, La., on a 15-hr. 55-min. schedule, the fastest ever set between these two cities (See *Railway Age* of April 5, page 710). The run will also be the longest "dawn to dusk" run (921 miles) of a luxury coach train in this country. An overnight companion train, the "Panama Limited" now makes the run between Chicago and New Orleans in 16 hr. 30 min., the fastest previous schedule.

"Olympian Hiawatha" to Begin Service on June 29

The "Olympian Hiawatha," new streamliner of the Chicago, Milwaukee, St. Paul & Pacific, on June 29 will begin daily, 45-hr. service on the 2,200 mi. run between Chicago-Milwaukee, Wis., and Seattle, Wash.-Tacoma, H. A. Scandrett, president, announced this week. He said the road is acquiring six new sets of equipment for the train, each costing approximately $1,500,000.

The train will consist of 12 cars, including a mail car; combination baggage and dormitory car; 40-seat dining car with diagonal table and seating arrangements; recreation car with restaurant and cocktail lounge; reclining coaches; and sleeping cars. Sixty of the cars are nearing completion in the road's shops at Milwaukee and 12 are being built by the Pullman-Standard Car Manufacturing Company. The latter units are "all room" cars, Mr. Scandrett said, consisting of bedrooms, compartments and drawing rooms. Six of the cars will have glass-enclosed "sky top" observation lounges, he stated.

In addition to Pullman accommodations, the streamliner will carry "Touralux" sleepers, offering berth accommodations to tourists at rates lower than those charged in Pullman cars. No extra fare will be charged on the "Olympian Hiawatha," the schedule of which will be announced soon, Mr. Scandrett said. The road's present trans-continental train, the "Olympian," will be renamed the "Columbian," and will continue on a slightly altered schedule.

Freight Car Loadings

Carloading figures for the week ended April 12 were not available as this issue went to press.

Loading of revenue freight for the week ended April 5 totaled 715,159 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, April 5			
District	1947	1946	1945
Eastern	154,235	138,511	151,915
Allegheny	152,982	132,889	167,477
Pocahontas	21,903	15,506	39,839
Southern	119,186	113,478	118,286
Northwestern	85,834	78,062	98,224
Central Western	119,309	105,816	121,258
Southwestern	61,710	59,382	68,673
Total Western Districts	266,853	243,260	288,155
Total All Roads	715,159	643,644	765,672
Commodities:			
Grain and grain products	49,189	37,574	46,341
Livestock	12,739	16,006	14,574
Coal	64,830	33,618	118,252
Coke	11,478	8,891	13,443
Forest products	47,394	42,650	39,088
Ore	17,735	9,609	35,437
Merchandise l.c.l.	126,841	128,028	109,067
Miscellaneous	384,953	367,268	389,470
April 5	715,189	643,644	765,672
March 29	829,412	809,142	836,000
March 22	844,041	804,606	816,741
March 15	841,147	799,906	816,556
March 8	805,789	786,189	767,055
Cumulative total, 14 weeks	11,233,174	10,376,623	10,843,902

In Canada.—Car loadings for the week ended March 29 totaled 66,777 cars, as compared to 70,203 cars for the previous week and 67,675 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 5, 1947	66,777	40,193
April 6, 1947	67,675	37,052
Cumulative totals for Canada:		
April 5, 1947	951,759	522,447
April 6, 1947	930,751	495,888

Equipment on Order

Class I railroads had 87,080 new freight cars on order on April 1, as compared with 75,358 on March 1 and 40,217 on April 1, 1946, according to the Association of American Railroads.

This year's April 1 total included 26,309 hopper cars, of which 1,842 were covered hoppers; 6,532 gondolas, 1,058 flat, 9,351 refrigerator, 550 stock, 318 miscellaneous freight cars and 42,962 box cars, including 37,793 plain and 5,169 automobile box cars. Of the total number of new freight cars on order on April 1, 17,634 are to be built in railroad shops and 69,446 in outside shops, the A. A. R. said.

The Class I roads also had 640 locomotives on order April 1, compared with 494 on the same day in 1946. The former

This 4,000-hp Diesel-electric passenger locomotive was delivered recently to the Missouri-Kansas-Texas for the new streamlined "Texas Special," now under construction for this road and the St. Louis-San Francisco. Built by the Electro-Motive Division of General Motors Corporation, it will enter service between St. Louis, Mo., and San Antonio, Tex.

* * *

total included 52 steam, six electric and 582 Diesel-electric locomotives, compared with 82 steam, six electric and 406 Diesel-electric a year ago.

Class I roads installed 7,249 new freight cars in service in the first three months of 1947, of which 3,017 were installed in March. New freight cars installed in service in the first quarter of 1946 totaled 8,006. Those installed in this year's first quarter included 1,814 hopper cars, of which 419 were covered hoppers; 773 gondolas, 300 refrigerator, 439 flat, 100 miscellaneous freight cars and 3,823 box cars, including 2,702 plain and 1,121 automobile box cars.

The Class I roads also put 220 new locomotives in service in the first three months of 1947, of which 24 were steam and 196 were Diesel-electric. New locomotives installed in the same period last year totaled 31, of which 20 were steam and eleven were Diesel-electric.

Goods Must Be Delivered at the Ordered Price—Neff

Declaring that "the time has come when ruinous inflation has got to be checked," Paul J. Neff, chief executive officer of the Missouri Pacific, announced this week that purchase contracts awarded by that road will no longer contain "escalator" clauses, which enable the seller to boost prices between the time goods are ordered and the date that they are delivered.

"Starting right now," Mr. Neff stated, "the M. P. Lines, which spends $75,000,000 a year in the 11 states in which it operates, is going to make its purchases on firm contracts. That is the only way in which costs can be held to reasonable levels—to refuse to pay excessive prices. We are advising our suppliers today that our future orders will be placed with firms who submit bids without escalator clauses."

The M. P. head asserted that "if the costs of equipment, materials and supplies do not come down, the only alternative will be for the railroads to petition the Interstate Commerce Commission for an increase in rates." He expressed the belief that people "would rather ride on old railroad equipment, and pay what it is worth, than to ride on new equipment at twice what it is worth."

"Erroneous" Car Story Challenged by Faricy

(*Continued from page 803*)

"Erroneous" Statements — Dealing with "other erroneous statements" in the Times article, Mr. Faricy denied that the A. A. R. is controlled by the vote of eastern roads. "It is controlled," he said, "by a board of directors of 18 members, only one-third of whom are from the East. The president of the association is from a western railroads, as is the operating vice-president [J. H. Aydelott] who directs the work of the Car Service Division." Mr. Faricy went on to call "preposterous" the charge "of a financial-political set-up in the East to halt development of the West through control of the A. A. R."

With respect to the story that E. R. Stettinius, in his former role of member of the Advisory Commission to the Council of National Defense, "urged railroads to build 400,000 cars in 1940," the A. A. R. president said it is "not true."

"The sum and substance of the car situation,' he sdded, "is that during long years of depression when railroads had hundreds of thousands more freight cars than they needed, comparatively few were built. With the coming of the war the railroads were not allowed to build as many as they wanted to. Since the war it has been impossible to secure sufficient materials to build more than a fraction of the cars ordered by the railroads. There simply are not enough cars in the country to handle currently present-day production, and will not be until the railroad car-building program can catch up with demand. In the meanwhile, the A. A. R. and its Car Service Division are doing everything that informed judgment and conscientious effort can do to make the most equitable distribution and efficient use of available cars."

Short Lines Change Date for Annual Meeting at N. Y.

The dates for the annual meeting of the American Short Line Railroad Association, to be held in New York at the Hotel New Yorker, have been changed from October 16 and 17 to October 21 and 22.

"Golden Rocket" to Feature Selective Radio Tuning

The "Golden Rocket," streamliner of the Chicago, Rock Island & Pacific and the Southern Pacific, scheduled to begin 39½-hr. service this summer between Chicago and Los Angeles, Cal., will feature "selective listening," a radio speaker installation permitting individual control within sections of the train's cars, it was announced this week. (Other details of the train were reported in the *Railway Age* of December 7, 1946, page 968.)

Several speakers placed in the car ceilings will have individually controlled conical amplifiers which will direct and limit the sound to the area of the car immediately

New Wabash President

At a meeting of the board of directors of the Wabash on April 17, Norman B. Pitcairn was, at his own request, elected chairman of the board, a newly created position in which he will be relieved of direct responsibility for operating the property. Arthur K. Atkinson, vice-president, finance and accounting and also secretary of the company, becomes president, replacing Mr. Pitcairn. W. Donald Steele, treasurer and assistant secretary, has been appointed secretary and treasurer in charge of the company's New York office.

below, it was stated. The volume of each speaker need be only that required in a very small room, according to the announcement, and may be adjusted individually or turned off entirely. The system will also be used for wire recordings and special train announcements.

A. A. R. Outlines Program for Continued "Reefer" Research

William T. Faricy, president of the Association of American Railroads, this week revealed additional details of plans for continuation of the refrigerator-car research program on which the association has been cooperating with other interested agencies. As noted in the *Railway Age* of March 8, page 511, the A. A. R. board of directors voted at its February 28 meeting to increase its 1947 appropriation for this project by $60,000—from $50,000 to $110,000.

In an April 15 statement, Mr. Faricy said that continuation of the research would be with a view to determining "what further improvements can be made in the construction and operation of refrigerator cars in order to develop the type best suited to serve the needs of perishable freight shippers." At the same time, he added, "the scope of the tests will be greatly broadened."

Eight Special Cars—"The tests to be conducted this year will be on a more extensive scale than heretofore made," the A. A. R. president continued. "Eight especially built refrigerator cars will be equipped with newly-developed devices which will make it possible for the first time to measure the flow of moist air. In addition, newly-installed instruments will be used to register the solar heat loads on the exterior of the car, the effect of nocturnal or sky radiation and the value of film resistance and dead air spaces in refrigerator car superstructures. Also, tests will be made to determine the proper amount of insulation best adaptable for refrigerator cars used in perishable freight service.

"By merely turning a switch, research engineers riding in a business car attached to the train will be able to record the temperatures from 460 different locations and also the relative humidity recorded by devices located at 48 other points in the eight cars, both while the train speeds across the country and when standing still. On all of these tests, research engineers will be constantly present both day and night, recording the variations in temperature and other scientific data that develops throughout the thousands of miles covered by the various shipments.

"At the same time it is planned to accumulate pertinent data relative to palletized loading, consumers' package development, lift truck operations, five and six feet wide sliding doors, and the construction of floor racks in refrigerator cars and refrigerator car floors. All information obtained will be compiled in condensed form with a view of determining later whether more detailed investigations of those subjects should be made."

Trouble the Alternative to Action

The economic double talk that produces such a "double standard" in rate regulation as exists between the public utilities and such a public service agency as the railroads, constitutes approaching trouble for the nation.

For the investor it means eventual obsolescence of property and hence final loss of his railroad-invested dollars. For the operator it means increasingly insurmountable financial obstacles and eventual physical breakdown of his road. For labor it means economic hopelessness—an era in which, while other labor groups not only prosper but also look forward toward increasing job security, railroad labor must either look forward to lower pay or to fewer jobs. As for the public, it had best recognize right now that such a breakdown and the subsequent government operation would place entirely on the direct and indirect users alike a tax-dealing burden that would break the back of our economy—in place of the vital revenue producing properties the railroads now are and could increasingly become under a more realistic rate structure.

For too long now the basic economic realities of the railroad business have been concealed from a public so directly concerned. They cry out for presentation, and for a responsible group to outline and state clearly the industry's problems and their relationship to the national welfare. . . . Constructive action, publicly undertaken, can alone promise the possibility of timely relief for the railroad industry's many problems, and particularly the dilemma of so regulating rates as to permit the return on investment essential to railroad progress now and in the future.

—R. S. Marshall, senior vice-president of the Chesapeake & Ohio, in the magazine Railway Progress.

Begins in June—The first test under this broadened plan will be made in June in connection with the movement from California to New York of eight cars loaded with oranges. In July, similar tests will be made in connection with top-iced vegetables to be transported from Salinas, Cal., to New York, and in August, there will be a movement of frozen foods from Oregon to the Atlantic seaboard. The following month, similar tests will be made in connection with shipments of grapes from California to New York. In addition, it is also planned to conduct tests in connection with shipments of citrus fruits from Texas to eastern destinations in the latter half of April and the first half of May, and tomatoes under ventilation from California to New York in October.

Of last year's tests, eight conducted between May and October involved shipments of grapefruit from Florida to New York, tomatoes from Texas to New York, cantaloupes, oranges and tomatoes from California to New York, and frozen foods from Oregon, both to New York and to Cincinnati. These commodities were loaded under various weather conditions in cars commonly used for the transportation of perishable freight. During the past winter, four more tests were made in connection with shipments of apples and pears from Wenatchee and Yakima, Wash., to eastern destinations to determine the efficiency of various types of inside temperature contrilled heaters.

Collaborating with the A. A. R.'s Bureau of Refrigerator Car Research in the tests are the United States Department of Agriculture, Interstate Commerce Commission, National Bureau of Standards of the Department of Commerce, American Farm Bureau Federation, United Fresh Fruit & Vegetable Association, Institute of American Poultry Industries, National Association of Fruit Processors, refrigerator car builders and representatives of independently-owned car lines and railroad-owned and controlled car lines.

C. & O. Asks Its Passengers to Refrain from Tipping

The Chesapeake & Ohio this week asked its passengers to refrain in the future from tipping for services rendered by C. & O. dining car employees and coach porters. The C. & O. request, publicized in newspaper advertisements, noted that the "no tipping" regulation does not apply to Pullman porters or joint terminal red caps.

"Why should you—the paying customer of the railroads—have to shell out for so many of the ordinary services you need when you travel?" the C. & O. ads asked. "Why shouldn't your rail ticket entitle you to courteous personal service — without extra charge?" The C. & O. said that it will "compensate" its employees for attending to the needs of the traveling public.

Additional news appears on pages 831 through 834.

With the Government Agencies

N.H. Fare Boost Will Yield $5¼ Million

I.C.C. report calls increase "moderate" in relation to rise in costs

Basic fare increases authorized by the Interstate Commerce Commission for the New York, New Haven & Hartford are expected by that road to yield $5,270,000 in additional 1947 revenue, according to the commission's April 8 report approving the adjustment. While that amount would fall short by $838,000 of offsetting the estimated 1947 deficit (before the increase) from passenger-train operations, the New Haven is a party to the pending railroad application for increased mail pay and it would also benefit from the increased rates being sought by the Railway Express Agency.

As noted briefly in the *Railway Age* of April 12, page 760, the commission's report was by Commissioner Rogers, and it approved the New Haven's petition for authority to increase its interstate basic one-way fare in coaches from 2.2 cents to 2.5 cents per mile and in parlor and sleeping cars from 3.3 cents to 3.5 cents. The accompanying orders granted the necessary fourth-section relief and carried short-notice permission authorizing publication of the approved increases on five-days' notice. The report was confined to the basic-fare proposal, thus leaving the commutation-rate phase of the New Haven petition for decision later.

Disposal of Fractions—With respect to the minimum fare, the commission approved an increase from 10 cents to 15 cents, whereas the New Haven had proposed 20 cents. Also trimmed was the proposal that sufficient be added to the resulting fares so that they will end in "0" or "5." In that connection the report prescribed the following rule: "When the total increased fares are less than $1, fractions of less than 0.5 cent shall be dropped and fractions of 0.5 cent or greater may be increased to the next whole cent. When the total increased fares are more than $1, such fares shall end in 0 or 5, but no more than 2.5 cents shall be added to the present fares as increased . . . in order to make such total fares end in 0 or 5.

In reviewing the evidence in the case Commissioner Rogers noted that the cash reserves accumulated by the New Haven during the war years "are being rapidly depleted by its subsequent deficit operations." The latter, he added, "must be converted into profitable operations at the earliest possible date" if the road "is to be kept in sound financial condition and enabled to render adequate and efficient service by properly maintaining its property" and carrying out a projected program for the acquisition of new equipment.

Figures set out in the report show the estimated 1947 deficit in operating income from passenger service before the increase at $6,108,000. This year's operating income from freight service was estimated at $7,343,000, but the estimated deficit in net income from all operations (without the fare increase) was $7,125,000. The actual deficit for 1946 was $6,365,788. The Ex Parte 162 freight rate increases which became effective January 1 are expected to raise New Haven freight revenues by 20 per cent. However, the resultant increase in total operating revenues will be only about 10 per cent; for, as Commissioner Roberts pointed out, the New Haven is "unique" in that about 50 per cent of its operating revenues and expenses are related to passenger-train service.

Increase "Moderate"—As to the fare increases which it authorized, the report said they would be "moderate in relation to the increases in wages and price level since the pre-war years," and in relation to fares prescribed and authorized by the commission in recent years. "For example," it added, "the resulting fares would be only about 25 and 16.7 per cent higher in coaches and Pullmans, respectively, than the fares prescribed by us in 1936."

Commissioner Rogers then went on to predict that the higher fares should yield a "substantial increase" in passenger revenues. The prediction followed a brief discussion of the competitive situation, where he noted that as to coach travel the competition is principally with the private automobile and "to some extent" with the common carrier bus. "It is estimated," he continued, "that the cost of traveling by automobile has increased about 50 per cent since 1941. The prevailing bus fare for short hauls in southern New England is already 2.5 cents per mile. The parking problem, particularly in the larger cities, when traveling by automobile and the greater speed and comfort by train than by bus when traveling for long distances are also considerations. It is the judgment of the New Haven's officials that under the circumstances the proposed increased fares will result in little, if any, diversion of the traffic."

The commission's refusal to approve the proposed minimum fare of 20 cents was based on its conclusion that the 15 cents approved "would appear to be sufficient, giving due consideration to the cost and value of the service." Meanwhile, the 10-cent minimum, which has been in effect on the New Haven since 1918, was called "insufficient to cover present-day costs, including the expense of station service, ticket selling and accounting, without considering the cost of transporting the passenger, even for short distances."

Equipment Defects Let Car Break Loose

I.C.C. finds Safety Appliance law violated in "Sunshine Special" operation

A defective coupler, defective air-brake equipment, and a defective hand brake caused the February 28 accident wherein the thirteenth and last car of the Pennsylvania's westbound "Sunshine Special" became separated from the standing train at the top of a grade in the Allegheny mountains near Gallitzin, Pa., according to the report of an Interstate Commerce Commission investigation conducted under the supervision of Commissioner Patterson. The runaway car, a lightweight, all-room sleeper, rolled down the grade eastward 3.37 miles, where it was derailed on a 9 deg. 15 min. curve, the derailment causing the car to overturn and slide on its side until it struck a rock wall and stopped "practically upright."

The accident resulted in the death of a Pullman porter, and the injury of 12 passengers and one train-service employee. The commission's report charged two violations of the Safety Appliance law.

"Under the Safety Appliance Law," it said, "all passenger-train cars are required to be equipped with efficient hand brakes. The movement of the thirteenth car without an efficient hand brake was in violation of the Safety Appliance law. In addition, the Safety Appliance law requires all cars used in moving interstate traffic to be equipped with couplers which can be uncoupled without the necessity of men going between the ends of the cars. The coupler at the rear of the twelfth car could not be uncoupled by the use of the uncoupling lever, and the condition of this coupler was in violation of the Safety Appliance law."

Scene of Accident—The derailment occurred at a point 3.37 miles east of the station at Gallitzin and 8.43 miles west of Altoona, on a four-track section of the Pittsburgh-Altoona line. The main tracks from south to north are designated No. 1, eastward freight, No. 2, eastward passenger, No. 3, westward freight, and No. 4, westward passenger. Trains moving with the current of traffic on tracks Nos. 1, 2 and 4 and in either direction on track No. 3 are operated by automatic block-signal and cab-signal indications. The derailment occurred on track No. 4.

From the west, beginning at home signal 32R, located 1,556 ft. west of the station at Gallitzin, there are, in succession a tangent 441 ft. in length, a 6 deg. 45 min. curve to the right 705 ft., a tangent 785 ft., a 3 deg. curve to the right 125 ft., and

a tangent 3,727 ft. to the east portal of a tunnel, which is 3,605 ft. long; then, as the report put it, "there are numerous sharp curves and short tangents."

From the west, in the immediate vicinity of the point of derailment, there are, in succession, a tangent 1,008 ft. in length, an 8 deg. curve to the right 595 ft., a tangent 262 ft., a 3 deg. 30 min. curve to the left 905 ft., a tangent 297 ft., and the 9 deg. 15 min. curve to the right 518 ft. to the point of derailment and 423 ft. eastward. The west end and the apex of a vertical curve are, respectively, 1,600 and 350 ft. west of the station at Gallitzin, and 2,200 and 950 ft. west of the west portal of the tunnel. From the west portal of the tunnel eastward the grade varies between 1 per cent and 1.81 per cent descending throughout a distance of 3.26 miles to the point of derailment, where it is 1.73 per cent.

In a Rock Cut—Throughout a distance 518 ft. immediately west and 60 ft. immediately east of the point of derailment the tracks on the curve involved are laid on a fill. In the immediate vicinity of the point of derailment a rock wall slopes upward at an angle of about 30 deg. and faces track No. 4 at an angle of about 45 deg. At a point 60 ft. east of the point of derailment a hillside cut, which is "practically perpendicular," parallels track No. 4 on the north. The wall of the cut is about 15 ft. distant from the centerline of the track.

The "Sunshine Special," identified in the report as No. 3, consisted of a steam locomotive and 13 cars, the ninth and thirteenth (the runaway) being of "lightweight, high-tensile-steel" construction and the others of "conventional all-steel construction." At Altoona, where a second engine was put on the head end to assist the train to Gallitzin, a terminal air-brake test was made.

The train left Altoona at 3.13 a.m., and because of inadequate steam pressure it stalled about one mile east of Gallitzin. After a delay of about 16 minutes it proceeded to Gallitzin, where it stopped at 3:54 a. m. on track No. 4 with its front end about 50 ft. east of signal 32R and the rear about 160 ft. west of the west portal of the tunnel. Soon afterward the head engine was detached and a road air-brake test was made. Then, when an attempt was made to start the train, the rear car, the Pullman "Cascade Mirage," became detached. As noted above, the car moved eastward out of control to its derailment 3.37 miles east of Gallitzin.

Car Slid on Its Side—The car overturned to the north and slid eastward on its left side, then struck the rock wall and was diverted upward and southward toward track No. 4. When it stopped, "practically upright," its front truck was on track No. 4 at a point 138 ft. east of the point of derailment and its rear end about 15 ft. north of track No. 4. "The left side of the car," the report continued, "was crushed inward, the left side sheets were scraped and torn, and the left side of the roof was crushed inward about two-thirds of its length." This was about 4:08 a. m. when the weather was "clear." The report estimated that the car's overturning speed on the curve involved would be about 62 m. p. h.

The car was built in 1940, and placed in service August 5, 1940. It is 84 ft. 6 in. long between the pulling faces of the couplers, and contains 5 bedrooms and 10 roomettes. The A end, which was coupled to the twelfth car, is of the non-vestibule design, but the B end is equipped with a vestibule. The car's light weight is 127,500 lb.; it is fitted with two 4-wheel trucks spaced 59.5 ft. between the truck centers, and has clasp brakes on all wheels. The journals are equipped with roller bearings.

The hand-brake equipment is of the horizontal-lever ratchet type provided with a hand-clasp latch, mounted on a staff through the buffer beam at the B end of the car and near the left diaphragm post. Among other parts of the brake, which the report described in detail, is a cast-steel pawl, slightly angular in shape, one end of which has a long and short tailpiece for the insertion of a person's foot and the other end a tooth to engage the notches of the ratchet wheel. The pawl is provided with a 1-in. cast steel trunnion to which it is secured by a ¾-in. bolt and washer.

Hand Brake Inoperative—The hand-brake equipment applies braking force on the two wheels at the left side of the B-end truck. The commission's investigation disclosed that the flagman attempted to stop the car by the use of the hand brake, but "could not force the pawl into position to engage the ratchet." Examination of the brake after the accident disclosed that the long tailpiece of the pawl was broken adjacent to the trunnion.

"Discoloration of the metal of the pawl," the report continued, "indicated that the break had existed during a considerable period of time. It appeared to have been broken as a result of its having been struck a severe blow by some metallic object. In addition, the trunnion was corroded to such an extent that the pawl could not be moved by striking it with a hammer. The hand-brake system was arranged to provide a braking ratio of 39 per cent of the light weight of the car. If the hand brake had been in operative condition, this accident would not have occurred."

P. R. R. brake instructions quoted in the report provide that where inspectors are employed to make a general inspection of cars upon arrival at a terminal, they "must make a visual inspection of . . . hand brakes . . . and make necessary repairs." The instructions say further that "all parts and connections of the hand brakes should be carefully examined and any necessary changes and repairs made." Also, there is a rule stipulating that "a car having the hand brakes inoperative must never be the rear car of a train." The equipment of No. 3 was last inspected by members of the mechanical force at Altoona about 50 min. prior to the time the accident occurred, but "no defective condition was observed."

Air Brake Equipment—The air-brake equipment of the car consists of a D-22-AR control valve, a combined auxiliary, emergency, and displacement reservoir, two 16-in. by 72-in. supply reservoirs, a 12-in. by 10-in. brake cylinder mounted on each side of each truck, two conductor's emergency valves, and an F-6 relay valve, related piping and armored-type air hose at each end of the car. "The four brake cylinders of this type of brake system are connected to common supply reservoirs," the report continued. "After a brake application excessive leakage from one cylinder will deplete the supply reservoirs and pressure in all four brake cylinders within a short period. Repeated application and release of the train-brake system within a short period will deplete all reservoir pressures."

Tests of the car's air-brake system disclosed that the packing cup of the left rear brake-cylinder piston was ruptured. This condition, the report said, permitted brake-cylinder pressure to escape through the breather port and "as a result, the brake would release in about 3½ min. after a 20-lb. brake-pipe reduction was made." The brake would release from an emergency application "after an interval of 2 min. 20 sec."

"The brake-cylinder-piston packing cup was of the Buna-S rubber, 12-in., snap-on type," the report went on. "The packing cup had become disconnected from the piston and was lying at the bck end of the cylinder. About 60 per cent of the outer rim of the cup had ruptured and was detached from the central body." Under the rules of this carrier, D-22 type control valves are required to be cleaned at intervals not exceeding 15 months. The air-brake equipment of the car in question was last cleaned and oiled at St. Louis, Mo., 20 months 21 days prior to the day of the accident, the report said, adding that "the components of the material of the packing cup were such that the rupture could have occurred at any time after it was placed in service. The actual time when the rupture occurred is not known."

Helper Cut Off at Summit—The maneuvering of the train just prior to the time when the car broke loose was described in the report as follows: "When the train stopped [at the apex of the grade at Gallitzin] the forward part was on the descending portion of the grade and the rear part was on the ascending portion of the grade . . . The stop was made after the engineer of the first engine made a 12-lb. brake-pipe reduction, which was not released until after the first engine was detached. The engineer of the second engine encountered difficulty in placing the double-heading cock on his engine in open position. About 2 min. elapsed before he released the train brakes, after which he recharged the brake pipe and then a full-service brake-pipe reduction was made to test the brakes. Then the brakes were released. When the engineer attempted to start the train it was necessary to reverse the engine to close the slack. Then, when a forward movement was started, the brakes became applied in emergency. Immediately afterward it was discovered that the rear car had become separated from the twelfth car. . . ."

The twelfth car was a conventional-type all-steel Pullman, equipped, like the thirteenth, with swivel-shank, A. A. R. Type T tight-lock couplers at each end. The rear coupler of the twelfth car was cast in June, 1943, and the last shop inspection was made at Sunnyside yard, N. Y., on

December 20, 1946. Both cars were assembled in the train at Sunnyside about 7 o'clock in the evening before the accident, and the equipment was inspected at Harrisburg and Altoona. The commission's investigation disclosed that the top portion of the rotary lock-lifter of the rear coupler of the twelfth car was broken at the rotor, 1⅝ in. below the point where it rested upon the trunnion.

Slack Closure Caused Uncoupling—"Discoloration of the metal of the rotary lock-lifter indicated that the break had existed during a considerable period," the report continued. "It apparently had broken as a result of a severe blow on the gusset section, which was somewhat flattened. An improvised split-key had been inserted in the tell-tale hole of the lift-toggle and, because of the light construction of this key, it had drawn into the lock-block cavity. After the accident the knuckle of the coupler at the west end of the thirteenth car was found in open position, as a result of bent skirting of the car having forced the uncoupling lever to raised position during the derailment. The couplers of both cars were gaged for height, contours and gathering arms, and the measurements were within the required specifications. The anti-creep features of both couplers were in good condition. The lock of the coupler of the thirteenth car could not be raised by the hammer-and-bar method of test. The lock of the rear coupler of the twelfth car could be raised by this test, because of the broken lock-lift lever. . . . Because of the broken lock-lift lever, which nullified the anti-creep features, the slack closures made during the attempt to start the train at Gallitzin resulted in the knuckle lock at the rear of the twelfth car becoming opened."

Employee Protection in Pullman Case Seen Unnecessary

The so-called buying group of railroads which is seeking Interstate Commerce Commission approval of the pooling arrangements involved in its proposed acquisition of the sleeping car business of the Pullman Company has asked the commission to deny a motion by the Order of Railway Conductors to impose employee-protection conditions in the event the regulatory body approves the carriers' application. The proceeding is Docket No. 29592.

"At the present stage of this proceeding, it is neither necessary or proper to attach any conditions with reference to terms of employment or protection of employees of the Pullman Company," the carriers said. "The proposal now before the commission involves purchase by the applicants of the stock of the Pullman Company and the division of the revenues of the sleeping car business among the applicants."

The railroads said that the method of operating the sleeping car service will remain "substantially the same" as at present and that the Pullman Company, under railroad ownership, would remain liable on all its contracts with its employees to the same extent as it now is.

Asserting that they do not plan to decrease the present sleeping car service, the applicants said that because the proposed transaction contemplates no physical change in the nature of the operations to be performed by the sleeping car company, "there is no occasion, at least at this time, to impose any labor conditions."

"It should not be overlooked," the railroads said, "that the labor organizations representing the employees of the Pullman Company, including the O. of R. C., intervened in the proceedings before the Philadelphia, Pa., court and declared their satisfaction with the formal commitment of the buying group of railroads."

Boston & Maine Is Fined $1,000 for Violating Service Order

Secretary W. P. Bartel of the Interstate Commerce Commission announced April 11 that the commission has been informed that judgment in the amount of $1,000 and costs was entered March 24 against the Boston & Maine in the United States district court. The complaint charged the carrier with 9 violations of an order issued by W. C. Kendall, as agent for the commission under Service Order No. 54.

According to Secretary Bartel's notice, the order was issued for the purpose of securing a more adequate distribution of box cars and directed the B. & M. to make daily deliveries to the New York Central and the Canadian Pacific of a specified number of empty cars.

I. C. C. Will Investigate N. J. Commutation Fares

Acting upon the petition filed recently by the Central of New Jersey, the Interstate Commerce Commission has instituted an investigation into the refusal of the Board of Public Utility Commissioners of New Jersey to authorize intrastate commutation fares in line with the 20 per cent raise in interstate rates which became effective last May and June, as authorized by the commission. The investigation is docketed as No. 29723.

Exception Rates Still Out of Water-Competitive Probe

The Interstate Commerce Commission adheres to its previously-expressed view that its Ex Parte No. 164 investigation of water-competitive railroad rates and practices should not include an inquiry into classification exceptions as requested by the water carriers. The commission has also refused at this time to extend the inquiry to include certain railroad commodity rates which the water carriers wanted brought in.

Advices in this connection went to interested parties in an April 11 notice issued by I. C. C. Secretary W. P. Bartel. The commission's previously-stated view with respect to the exceptions was that any comprehensive consideration of them should await the establishment of the uniform classification required by its findings in *Class Rate Investigation, 1939, 262* I. C. C. 447. "With respect to the commodity rates suggested for investigation," the Bartel notice said, "it appears that, with a few unimportant exceptions, they have been influenced only to a limited extent, if at all, by water competition from ocean carriers and that any investigation of them would involve many considerations not related to the object of affording emergency relief to ocean carriers."

The commission's present determination, the notice added, "is of course without prejudice to consideration of such rates or any of them upon formal complaints." And it is also "independent of any action which may be taken in pending fourth-section proceedings relating to this general subject."

Meanwhile the commission has issued in Ex Parte No. 164 an order denying a motion of Refrigerated Steamship Lines, Inc., which sought to include "an investigation with respect to rail and water rates on citrus fruits from Florida to Trunk Line and New England territories, to direct rail and water carriers to negotiate settlement of issues that would be involved in such an investigation, and pending such investigation, to stay action on certain fourth section applications and prohibit additional changes in the competitive rate structure."

I. C. C. Postpones Hearings in Per Diem Cases

The Interstate Commerce Commission has further postponed from April 15 until May 20 the initial hearing in connection with the No. 29670 investigation which it instituted to determine whether a $2 per diem rental charge for freight cars, other than refrigerator and tank cars, would promote greater efficiency in the use of equipment during periods of car shortage. Also, the commission has postponed from May 13 until June 17 hearings in the other pending per diem case—No. 29587 wherein more than 160 short-line railroads are assailing the February 1, 1945, increase from $1 to $1.15 in the per diem rate and asking that it be cut to 95 cents with an award of reparations. Both hearings are scheduled to be held in Washington, D. C.

Upholds License Tax on Erie Coal-Storage Affiliate

The Supreme Court of the United States on April 15 affirmed a decision of New Jersey's Court of Errors and Appeals which had upheld the conviction and fine of Independent Warehouses, Inc., for carrying on the business of storing goods for hire without procuring a license or paying the license tax levied by an ordinance of Saddle River township, N. J. Independent is owned by the Pennsylvania Coal Company, a subsidiary of the Erie, and it based its appeal from the conviction on a contention that the license tax was an undue burden on interstate commerce.

Prior to 1939 the warehouse properties at Saddle River were operated by the coal company or its lessees as a private business for the storage and handling of coal; and Saddle River levied personal property taxes upon the coal in storage. In 1939, Independent was converted into a public utility to serve shippers of coal on Erie lines, and thus the coal became exempt from personal property taxes under a New Jersey law granting such exemption to goods stored in warehouses conducted for hire. Despite this change in status, Saddle River continued to levy personal property taxes on the coal until the 1940 assessment was invalidated by the state courts. The township then turned to the licensing idea, the effect of which was to shift the direct incidence of

taxation from the owners of the coal, i.e., the shipper-distributors, to Independent.

The Supreme Court's majority opinion, delivered by Justice Rutledge, identified the controversy as being one of "the familiar 'interruption' or 'cessation' type" which required "only a determination of the proper application to be made of the well-established legal principles to the particular circumstances." "It is," Justice Rutledge added, "whether the cessation taking place in the movement of goods interstate, as shown by the record, is of a nature which permits the state or municipality to tax the goods or services, here the business of storing them, rendered in connection with their handling."

The court held that the cessation was of such nature. Justice Jackson filed a dissenting opinion which prompted Justice Frankfurter to file a concurring expression adding "a few words to the court's opinion."

Proposes Rules for Carrying Radioactive Materials

Regulations governing the transportation of radioactive materials are embodied in proposed amendments to the Interstate Commerce Commission's regulations for the transportation of explosives and other dangerous articles. The proposals were made public by I.C.C. Secretary W. P. Bartel, who issued along with them an April 4 notice in Docket No. 3666, the commission's general proceeding relating to the matter.

The notice stated that the proposed amendments had been the subject of study by interested parties, who reached "substantial agreement" with respect to them and suggested that they be disposed of by the "modified procedure." Thus any party desiring to be heard must advise the commission within 20 days from the date of the notice. Otherwise the commission "may proceed to investigate and determine the matters involved,' or "may suspend action pending formal hearing in this docket."

N. M. B. Proposes Regulations for Representation Disputes

Proposed rules governing the handling of employee-representation disputes under the Railway Labor Act will be the subject of public hearings before the National Mediation Board in Washington, D. C., on April 24. The board published its proposed rules in the April 12 issue of the Federal Register.

They would set out for the first time formal regulations for the handling of the representation cases. Among the proposed rules is that relating to run-off elections which would provide that if in any craft or class no organization or individual receives a majority of the legal votes cast, a second, or run-off, election "shall be held forthwith" between the two organizations or individuals which received the highest number of votes. Then there is the proposal with respect to the age of authorization cards which would stipulate that such authorizations "must be signed and dated in the employee's own handwriting"; and that no authorizations will be accepted which bear a date prior to one year before the date of the application for investigation of a representation dispute. As to repeat elections, the board proposes a rule to the effect that it will not commence investigation of a representation dispute for a period of two years from the date of a certification covering the same craft or class of employees on the same carrier.

Suspends Proposed Increases in Express Rates on Perishables

The Interstate Commerce Commission has suspended from April 15 until November 14 the operation of tariffs whereby the Railway Express Agency is proposing to increase express carload commodity rates on fruits and vegetables from points in Pacific Coast and Intermountain territories to points in this country and from the same origins and Texas to points in Canada by 20 cents per 100 lb. The proceeding is docketed as I. & S. No. 5483.

The suspension notice, issued by I. C. C. Secretary W. P. Bartel, said that the commission had advised interested parties "that consideration will be given to a special permission application seeking authority to establish on less-than-statutory notice, increases of not more than 13 cents per 100 lb. in the present rates held in force by the order of suspension."

Overcharges and Undercharges of Truckers and Forwarders

The House committee on interstate and foreign commerce has reported favorably to the House a bill to provide limitations on the time within which actions may be brought for the recovery of undercharges or overcharges by or against common carriers by motor vehicle, common carriers by water, and freight forwarders, and fixing the time as two years. The bill, H.R. 2759, was introduced by the committee's chairman, Representative Wolverton, Republican of New Jersey.

The principal effect of its provisions, as the committee report explained, would be to provide uniformity with respect to the matter under the various parts of the Interstate Commerce Act. Such uniformity would be accomplished by including in Parts II, III, and IV provisions like those in Part I which applies to railroads. Also the bill would extend to all common carriers by water Part III's reparations provisions from which carriers on the inland waterways are now exempt.

Meanwhile the committee decided after hearings not to recommend legislation applying reparations provisions to motor carriers and forwarders. The hearings were held on H. R. 2324, which Chairman Wolverton also introduced and which was favored by the Interstate Commerce Commission.

Pre-Hearing Conference Held in Mail Pay Proceeding

Railroad Counsel in the Interstate Commerce Commission's No. 9200 proceeding, wherein the carriers are seeking an increase of 45 per cent in rates for handling United States mail, this week urged the Commission to set an early hearing date. The railroads' request, presented by E. H. Burgess, vice-president and general counsel of the Baltimore & Ohio, was made a pre-hearing conference April 15 at the Washington, D. C., offices of the commission.

Commissioner Mitchell, presiding at the conference, stated that it was the duty of the I. C. C. under the law to get the railroads every cent to which they are entitled "but not one cent more." He said that the commission regarded the pending proceeling as a "difficult" one, but that it was prepared to handle it expeditiously.

Mr. Burgess, who asked that the hearing be held early next month, said that the railroads' pending application is based on virtually the same issues as those in which the carriers sought an increase in freight rates and are now seeking higher passenger fares. He told the conference that the railroads were preparing a study showing increased costs since 1940, which, he indicated, would justify increases over and above those which the railroads are seeking.

At the suggestion of Commissioner Mitchell, representatives of the railroads and the Post Office Department agreed to confer with Dr. Ford K. Edwards, chief cost analyst of the I. C. C. Bureau of Transport Economics and Statistics, on the cost study. Commissioner Mitchell said that the railroads could ask for a hearing date upon completion of the conferences, which are scheduled to start next week.

F. J. Delany, solicitor for the Post Office Department, asked for a delay of approximately 8 months in order to study the railroads' proposals and file a reply. Commissioner Mitchell, however, opposed such a delay, which later was described by Mr. Burgess as "unthinkable." Mr. Delany said that the department, because of inadequate funds, lacks sufficient personnel to study the railroads' petition. At the same time, he indicated that a deficiency appropriation may be forthcoming from Congress.

I. C. C. Orders Cut in Iron and Steel Rates to Colorado

Passing upon a complaint of the Rocky Mountain Association of Distributors, Division 2 of the Interstate Commerce Commission has found unreasonable the carload rates on iron and steel articles from all origins on and east of the Mississippi river and north of the Ohio and Potomac rivers to Colorado common points. The complainant alleged that its members, who sell, distribute and fabricate iron and steel articles, have been subjected to undue prejudice while undue preference has been accorded their competitors in Montana, Wyoming and Utah common-point territory.

The rates to Colorado have been approximately 32.5 per cent of first class, minimum 40,000 lb. The commission has found that reasonable rates for the future will be 29 per cent of first-class, minimum 80,000 lb. The rates to Montana and Utah range from 27.5 to 32.5 per cent of first class on the basis of a 40,000-lb. minimum, and from 24 to 27.5 per cent of first class at the 80,000-lb. minimum.

The proceeding was docketed as No. 29066, and the majority report represents the views of Commissioners Splawn and

Alldredge. Chairman Aitchison dissented. "The rate history," he said, "shows that the present rates are the result of years of painstaking effort to reach a proper adjustment. To disrupt the adjustment merely to conform to what was accomplished elsewhere will have far-reaching effects on the entire steel industry, and does not seem to be warranted herein."

Railroads, O. D. T. File Briefs in Car Service Probe

The respondent railroads and the Office of Defense Transportation were among the parties to file briefs with the Interstate Commerce Comission this week in the Docket No. 29669 proceeding, relating to the commission's investigation of railroad practices with respect to freight cars. As noted in *Railway Age* of March 29, page 669, hearings in the proceeding were concluded March 21.

According to the railroads, testimony presented at the hearing lends no support to a proposal that the I. C. C. take over the establishment, administration and enforcement of car service rules. The carriers said that car service rules established and enforced by the commission would "work against the public interest."

"There is no evidence in the record which would support a finding that more efficient use of the existing car supply would be accomplished by the commission's taking over the car service rules," the carriers contended. "To the contrary, the radical action would be in contravention of the public interest as embodied in the transportation policy set forth in the Interstate Commerce Act. In view of this, and having in mind that the commission's exercise of emergency powers under Section 1(15) of the . . . act requires no hearing, it is clear, in our view, that so much of this proceeding as pertains to rules, regulations and practices with respect to car service should, by order, be dismissed."

The railroads also contended that a proposal by the I. C. C.'s Bureau of Service that the latter supervise railroad operations in car service matters and distribution "may be alluring to the Bureau of Service, but it can hardly be so to the commission." The respondents added that such a proposal also would be subversive to public interest.

The O. D. T., after listing the contentions presented by the carriers and shippers, concluded that "the record is conclusive that the railroads themselves cannot be depended upon to bring about the improvement in present conditions which the public interest demands."

"Certainly they cannot now be expected to voluntarily comply with the section of the law which they have ignored ever since 1920," the O. D. T. said. "That leaves only one alternative, and it is the alternative provided in Section 1(14), which invests the commission with authority to require the establishment of reasonable rules, regulations and practices with respect to car service when the railroads have failed to act."

The O. D. T. stated that "there is no reason to think" that even if the I. C. C. did prescribe or enforce car service rules of its own, that any greater control would be necessary than is now exercised in connection with the administration of regulations issued under such acts as those pertaining to the transportation of explosives and locomotives inspection. "It does not follow," it added, "that rules issued by the commission necessarily would be complicated, or that complexity would be inherent in such rules but not in rules issued by the Association of American Railroads. Further, the commission may assume that the respondents will observe the law and that it will not be necessary to maintain a large force of agents in order to compel recalcitrant carriers to abide by it."

Briefs also were submitted by the Department of Agriculture, individual shippers and shippers' groups and various state and municipal trade organizations.

Equipment and Supplies

FREIGHT CARS

The WABASH has ordered 300 50-ton box cars from its Decatur, Ill., shop.

The UNION PACIFIC is inquiring for 400 70-ton covered hopper cars.

The NEW JERSEY, INDIANA & ILLINOIS, a subsidiary of the Wabash, is inquiring for 100 50-ton automobile cars.

The SOUTHERN has ordered 150 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company, to be built at Butler, Pa.

The NORTHERN PACIFIC has ordered 1,000 50-ton box cars from its Brainerd, Minn., shops. Construction is expected to begin early in the third quarter.

The DETROIT & MACKINAC has ordered 25 50-ton hopper cars and 10 70-ton covered hopper cars from the General American Transportation Corporation.

The BELT OF CHICAGO has received delivery of 20 30-ton cabooses, which were built by the International Railway Car & Equipment Manufacturing Co., Kenton, Ohio.

The FRUIT GROWERS EXPRESS COMPANY contemplates building in its own shops 1,100 40-ton refrigerator cars, including 500 reported in the *Railway Age* of March 29, page 674.

The KANSAS CITY SOUTHERN has ordered 400 50-ton box cars from the Pullman-Standard Car Manufacturing Company. This is in addition to the 800 reported in the *Railway Age* for February 15.

The Pullman-Standard Car Manufacturing Company has delivered the first of 1,000 refrigerator cars ordered by the PACIFIC FRUIT EXPRESS COMPANY (owned jointly by the Union Pacific and the Southern Pacific), A. A. Logmann, manager of works for Pullman-Standard, announced last week. The deliveries are expected soon to reach 12 cars per day.

The CHICAGO & NORTH WESTERN has ordered 1,400 50-ton box cars, 400 of which are for the Chicago, St. Paul, Minneapolis & Omaha, from the American Car & Foundry Co. The inquiry for this equipment was reported in the *Railway Age* for March 15.

SIGNALING

The LEHIGH VALLEY has ordered materials from the General Railway Signal Company for the installation of a Type H, 2-wire coded remote control system at Landsdown, N. J., and Pattenburg. The control machine, which will be located at Landsdown, will have an 18-in. by 24.5-in. panel equipped with 14 track indication lights, 4 switch levers, 5 signal levers, 6 start buttons, a recheck and cancel switch, and a maintainer call switch. This system will control 4 switch machines and 9 signals in the vicinity of Landsdown, and 2 switch machines and 7 signals near Pattenburg. Type SA searchlight signals, Type K relays, and welded steel bungalows are included in this order.

IRON AND STEEL

The READING has ordered 10,000 tons of rail from the Bethlehem Steel Company.

Supply Trade

General American Profit Over $3.5 Million in 1946

Net profit of the General American Transportation Corporation last year amounted to $3,598,870, an increase of $757,771 over 1945, according to the recently released annual report. Earnings were depressed, the report said, because of strikes during the early part of 1946 and the consequent material shortages throughout the year. The material supply is better now and it is hoped that generally strikes will be avoided during the current year. In consequence, the report added, the outlook for the firm's manufacturing divisions is much brighter. Orders for manufacturing output are the highest in history.

Edward C. Hyland, director of commercial research-industrial finishes for the **Pittsburgh Plate Glass Company,** has retired after 48 years' service with the firm.

Thomas J. Lawless, formerly sales manager of the **Champion Rivet Company,** has been elected vice-president in charge of sales.

C. E. Miller, service representative of the **Vapor Car Heating Company,** Chicago, has been appointed district engineer of the company's office at Philadelphia, Pa.

The **Northwest Engineering Company,** Chicago, has announced the removal, on May 1, of its executive and sales offices

at 28 E. Jackson boulevard, to new and larger quarters at 135 South LaSalle street.

The **National Malleable & Steel Castings Co.** has licensed Industrial Steels, Ltd., of Sidney, Australia, to manufacture its patented car couplers, freight car trucks, draft gears and other railroad specialties in that country.

John F. Marquitz, former manager of the Seattle, Wash., branch of Fairbanks-Morse & Co., Chicago, has been appointed

John F. Marquitz

assistant manager of the railroad division, to succeed **John S. King,** a sketch of whose career appeared in the *Railway Age* for February 15. Mr. Marquitz has been associated with Fairbanks-Morse for nearly 40 years. Before his appointment as manager of the Seattle branch, he served the organization in Dallas, Tex., and the company's Stoker division.

W. N. Foster, divisional district representative of the Caterpillar Tractor Company, Peoria, Ill., has been promoted to assistant eastern division sales manager, succeeding **C. A. Barabe,** who is taking a six-month medical leave of absence.

John R. Kingman, sales agent at the St. Louis, Mo., office of the **National Malleable & Steel Castings Co.,** has been transferred to the Richmond, Va., office, to work on sales development in the southeastern territory served by that office.

E. D. Cowlin, resident manager of the Reliance division of the **Eaton Manufacturing Company,** at Massillon, Ohio, has been appointed general manager of that division, with the same headquarters. The company has also announced the following changes in executive personnel: **R. H. Daisley** has been elected vice-president and director of manufacturing, at Cleveland, Ohio. **H. J. McGinn** has been elected vice-president and director of sales. **Richard Inglis** has been elected vice-president and general counsel. All other corporate officers have been re-elected. The Wilcox-Rich division will be discontinued as such, and will be divided into the Valve division, with plants at Battle Creek, Mich., and Lawton; the Saginaw division, with plants at Saginaw, Mich.; and the Pump division, with a plant at Marshall, Mich. **H. I. Dyer,** former plant manager of the Battle Creek and Lawton plants, will be general manager in charge of the Valve division. **Herbert Russell,** former plant manager of the Saginaw plants, will be general manager of the Saginaw division. **F. H. Mott, Jr.,** has been appointed general

E. D. Cowlin

manager of the Pump division. The sales, engineering and research offices for these three new divisions will remain at Detroit, Mich.

In 1930, Mr. Cowlin was appointed general sales manager of the Reliance division, at Massillon, Ohio, set up by Eaton after its merger with the Reliance organization, of which he had been since 1924 manager of the New York sales office. Upon the retirement of W. H. Crawford in 1945, he was named resident manager of the Reliance division. Mr. McGinn joined Reliance in 1913 as manager of the Chicago sales office, and later became general sales manager at Massillon. In 1931 he was elected a vice-president of Eaton, and a director in 1932. In 1941 he was appointed general manager of the Reliance division. Mr. Daisley joined Eaton in 1922 as chief inspector of the Wilcox Products Company, Saginaw, Mich. In 1936 he became general manager of the Wilcox-Rich division, and in 1937 was named president and a director of Eaton-Wilcox-Rich, Ltd. Mr. Daisley was elected a vice-president of Eaton in 1938, and elevated to the board of directors in 1941. Mr. Inglis, a partner in the firm of Hauxhurst, Inglis, Sharp & Hull, Cleveland, has been associated with Eaton since 1922, when he became a director of the Torbensen Axle Company, a predecessor of the present corporation.

The **Hunt-Spiller Manufacturing Corporation** has announced that at its annual directors' meeting, **F. W. Lampton,** former general sales manager, was elected vice-president and general sales manager and **D. F. Hall,** former western sales manager, was elected vice-president and western sales manager. All other officers of the firm remain the same.

Mr. Lampton began his career in 1907 as a machinist's apprentice with the St. Louis-San Francisco at Fort Scott, Kan., and served as machinist from 1912 to 1915, in which year he joined the Arcadia (Kan.) Coal & Mining Co., as master mechanic. In 1917 he again became associated with the St. Louis-San Francisco, serving successively as night roundhouse foreman at Pittsburgh, Kan.; general foreman, Wichita, Kan.; general foreman, Thayer, Mo., and general foreman, South shops, Springfield, Mo. Mr. Lampton joined Hunt-Spiller in 1926 as representative in the southwest territory. He was appointed assistant sales manager in 1941, sales manager in 1942, and general sales manager in 1946.

Mr. Hall served his apprenticeship

F. W. Lampton

as a machinist in the Dubuque, Iowa, shops of the Chicago, Milwaukee, St. Paul & Pacific. During World War I he was a member of the air corps and upon returning to the Milwaukee at the end of the war was appointed roundhouse foreman

D. F. Hall

at Ottumwa, Iowa. In 1924, he was appointed sales and service engineer for the Stover Manufacturing & Engine Co., Freeport, Ill., serving in that capacity until January, 1928. He joined Hunt-Spiller in February, 1928, as representative in the northwestern territory and in June, 1945, was appointed western sales manager.

L. A. Hamilton, assistant manager of the Seattle (Wash.) district, of the **Air Reduction Sales Company,** New York, has been appointed manager of that district, which includes practically the entire state of Washington, the northern part of Idaho, and the state of Montana. Graduated by Rice Institute in 1929, Mr. Hamilton en-

tered the service of Air Reduction in 1930, served in the Houston (Tex.) and Los Angeles (Cal.) districts, and entered the armed forces in 1941. Released from the armed forces in 1945, he returned to Air Reduction, and was appointed assistant manager of the Seattle district in May, 1946. **Emmett W. MacCorkle, Jr.,** assistant manager of the gas sales department, at New York, has been appointed district manager of the Portland (Ore.) district, which includes the entire state of Oregon, the southern half of Idaho, and a part of the state of Washington in the vicinity of Walla Walla. Mr. MacCorkle, who was educated at Washington & Lee University and at Cornell University, entered the company's service as a salesman in 1935, served as assistant sales manager in the Cleveland (Ohio) and Wheeling (W. Va.) districts, and entered the armed forces in 1941. Released from the armed forces, he returned to Air Reduction in December, 1945, as assistant manager of the gas sales department, at New York. **Herman Van Fleet, Jr.,** assistant to the manager of the Metropolitan (New York) district, has been appointed manager of the New England district, which includes the states of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and the eastern third of Connecticut. His headquarters will be at 122 Mt. Vernon street, Boston, Mass. In addition to his sales function, Mr. Van Fleet will be in charge of Air Reduction plants at Boston, South Portland, Me., and Central Falls, R. I. Upon his graduation by Cornell University in 1937, Mr. Van Fleet entered the service of Air Reduction, served as a salesman at Baltimore, Md., and at St. Louis, Mo., and entered the armed services in 1941. Released from the armed forces in 1945, he returned to the company in November, 1945, and was appointed assistant to the manager of the Metropolitan (New York) in February, 1946.

Wendell E. Whipp, president of the **Monarch Machine Tool Company** since 1931, has been elected chairman of the board to succeed the late **F. P. Thedieck,** and **Jerome A. Raterman,** formerly executive vice-president, has been elected president.

Frank P. Jones, Jr., a member of the **General Electric Company's** transportation division, Philadelphia, Pa., has retired after nearly 40 years' service. Mr. Jones has served as General Electric's representative for the Pennsylvania almost continually since 1912, in which capacity he is succeeded by **L. W. Ballard,** of the Philadelphia office.

OBITUARY

M. C. M. Hatch died at his home at Provincetown, Mass., on April 5, after a long illness. He was born at Chelsea, Mass., March 14, 1882, and after attending Massachusetts Institute of Technology and the University of California entered the service of the Southern Pacific at its West Oakland, Cal., shops in June, 1903. He worked also in the testing and signal departments. He then went to the Needles, Cal., and the San Bernardino shops of the Atchison, Topeka & Santa Fe, and in June, 1905, became a draftsman in the motive power department of the Boston & Maine. He was made chief draftsman in December, 1906, and held that position until November, 1911, when he was appointed engineer of tests of the New England Lines. In June, 1912, he was made superintendent of fuel service of the Delaware, Lackawanna & Western, resigning in February, 1917, to become assistant to the president of the Locomotive Pulverized Fuel Company, and later becoming associated with the Railway & Industrial Engineers. He reëntered railway service in 1921 as assistant mechanical engineer of the Missouri-Kansas-Texas, but was soon promoted to mechanical engineer, then to assistant to the executive vice-president, and in March, 1924, to general mechanical superintendent. After retiring from that position in 1925 he was associated with the Armspear Manufacturing Company of New York, and later was a representative of the Standard Stoker Company at Boston, Mass. Illness forced him to retire a number of years ago, since which time he has been living on Cape Cod and giving time, so far as his health would permit, to the study of American steam locomotive development. He only recently completed the manuscript for a book on this subject, tentatively entitled, "White Feather and Red Stack."

Car Service

I. C. C. Service Order No. 647 (revised) which maintains the priorities set-up for foreign-relief grain offered for loading at points in Oregon, Washington, Idaho and western Montana, has been modified by Amendment No. 2 to provide that cars loaded with export wheat subject to the order and moving to specified inspection points may be diverted to domestic consignees upon special permit. The permit agent is A. R. Mollison, Post Office Building, Portland, Ore. The amendment also changes the weekly car quotas of the Great Northern and Chicago, Milwaukee, St. Paul & Pacific, the former being now required to give preference in car supply to the priority traffic to the extent of 72 cars per week instead of 48, and the latter 36 instead of 24.

I. C. C. Service Order No. 369, which provides for "super-demurrage" charges on closed box cars, has been modified by Amendment No. 12 to extend to all bulk freight the exemptions provided for traffic held at ports for transfer to vessels or held at United States-Canadian border crossings.

I. C. C. Service Order No. 396, which requires the reconsignment of refrigerator cars within 48 hours from the first 7 a. m. after arrival at diversion point, has been modified by Amendment No. 6 to prohibit railroads from executing reconsignment orders when they would involve backhauling, i. e., moving the car "through or to a point where that car had previously been transported in through or continuous movement."

I. C. C. Service Order No. 692, which requires reconsignment of lumber and kindred products within 48 hours from the first 7 a. m. after arrival at diversion point, has been modified by Amendment No. 1 to prohibit railroads from executing reconsignment orders when they would involve backhauling, i. e., moving the car "through or to a point where that car had previously been transported in through or continuous movement."

I. C. C. Service Order No. 646, which permits an initial icing at Roseville, Calif., San Jose or Stockton of vegetables from California's Salinas-Watsonville district, has been extended by Amendment No. 1, which set back the expiration date from April 15 until June 30.

I. C. C. Service Order No. 684, which prohibits railroads from performing New York harbor lighterage services except on 48-hours notice, has been extended by Amendment No. 1, which set back its expiration date from April 17 until July 1.

The Office of Defense Transportation has recently "directed" the Association of American Railroads to advise all roads that no more box cars are to be fitted for the transportation of automobile parts without prior consent of O. D. T. The "directive" came from O. D. T. Director J. Monroe Johnson, who stated that he was "becoming alarmed" at the "large number" of such cars (designated XAP) which the fittings have removed from general service. The O. D. T. director went on to request that each road furnish him a list of the numbers and types of XAP cars now in service, "divided between those specially equipped for bodies, fenders, wheels, motors, transmissions, etc., also how many of each class have been so converted since July 1, 1946."

Organizations

The annual spring dinner dance of the **Traffic Club of Newark** (N. J.) will be held in the grand ballroom of the Hotel Robert Treat, Newark, on May 3.

C. F. Weil, treasurer of the **Allied Railway Supply Association,** has also been elected secretary of this association to succeed in that post the late J. F. Gettrust.

The **Mid-West Shippers Advisory Board** will hold its 78th regular meeting on April 24 and 25, at the Sherman hotel, Chicago.

The **Northwest Shippers Advisory Board** will hold its 80th regular meeting on April 24, at the Hotel Cataract, Sioux Falls, S. D.

The **New York Chapter of the Railway Enthusiasts** will be addressed by C. W. Fischer, assistant general foreman and wreckmaster of the New Haven at its meeting on April 23, at 7:45 p. m., at Grand Central Terminal, room 5646. Mr. Fischer's subject will be "Cleaning Up a Wreck." A motion picture entitled "Money at Work" will also be shown.

The **American Standards Association** is sponsoring a meeting at the Waldorf-Astoria Hotel in New York, on May 6,

(*Continued on page 823*)

PULLMAN INCORPORATED

A REPORT TO THE RAILROAD USERS OF PULLMAN SERVICES AND PRODUCTS

(Condensed from Annual Report for 1946 to Stockholders)

In a year seldom equalled for the number and extent of forces acting to retard enterprise, the Pullman group of companies came through 1946, the first full year after the close of World War II, with a fairly satisfactory record of accomplishment, described in some detail below.

SLEEPING CAR SERVICE OPERATIONS

* * * Car Operations in 1946 were characterized by the largest peacetime traffic volume in the company's history, sharply expanding wage and other operating costs, diminishing spread between income and outgo, and the smallest margin of profit since the prewar year 1941. * * *

* * * Revenue from regular commercial and tourist travel—the profit producing end of the business—scored a small gain for the year as a whole. The peak of the return movement of troops from overseas was reached in January 1946 and Pullman's transport of service personnel declined rapidly thereafter, approaching the vanishing point at the close of the year, as disclosed by Chart A below. * * *

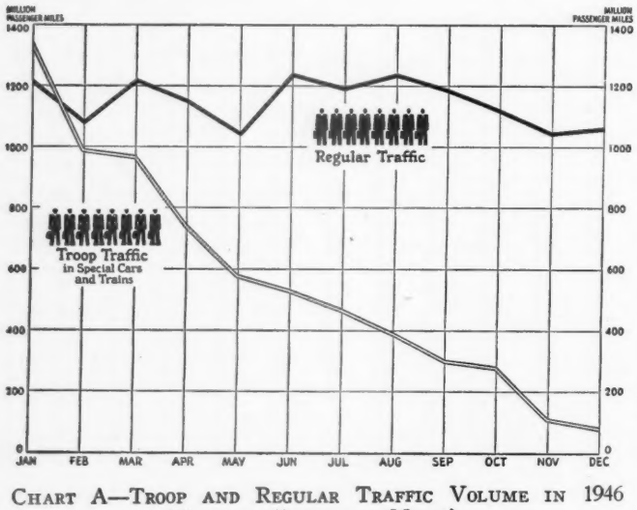


CHART A—TROOP AND REGULAR TRAFFIC VOLUME IN 1946 (REVENUE PASSENGER MILES).

* * * Coast-to-coast through sleeping car service was inaugurated in March 1946 by the Railroads and The Pullman Company after careful study and agreement between connecting Roads, on the routes over which there was sufficient volume of through travel to support these services. This is a transcontinental application of the interline sleeping car services operated throughout the United States by the Railroads and Pullman for many years, and the volume of through traffic obtained on these coast-to-coast lines indicates approval of the service by the traveling public. * * *

* * * In 1946 Pullman travel returned to its peacetime standards of safety, with a perfect safety record of *no passenger fatalities* in the 14 billions of passenger miles performed *in regular-service Pullman cars* in that year. There were 3 fatalities among Armed Forces personnel in 6.7 billions of passenger miles performed in Pullman-operated troop service cars, as compared with higher ratios obtaining in that service during the war years. * * *

* * * Profits in the sleeping car operating business were squeezed between the swift rise of prime costs (wages and materials) and the fixed level of rates charged for sleeping car service, with the result that ratio of operating expenses to operating revenue rose to 97%. After provision for contract payments to railroads and Federal taxes on income, and adjusting for 1945-1946 lap-over items, the sleeping car service realized an adjusted net profit of $1,258,323, or less than 1%, on the sizable gross revenue of $138,788,391. * * *

* * * No formal action has as yet been taken with respect to an application to the Interstate Commerce Commission for a general increase of Pullman rates along the lines of the freight rate increase recently granted the Railroads. However, unless the tide of rising unit operating expenses can be arrested and costs brought under control in 1947, the entire margin of net earnings in the car operating business may disappear. To preclude that possibility, consideration is now being given to filing with the Interstate Commerce Commission a petition requesting approval of an increase in sleeping and parlor car rates, fares and charges. * * *

MANUFACTURING AND ENGINEERING OPERATIONS

* * * While the railway equipment builders enjoyed an exceptionally favorable year from the standpoint of business booked, production of freight and passenger cars bogged down badly as result of strike interferences and severe shortages of materials and parts. These adverse conditions made it impossible to maintain the greater production called for by the large volume of business taken. Unfilled-order backlog of the Pullman-Standard Car Manufacturing Company subsidiary amounted to $263,000,000 as of February 1, 1947, which exceeded that for any other peacetime period in the Company's history, but at this time it appears that material supply will still be a limiting factor in production for the next several months. * * *

* * * The following series of production "firsts" scored by Pullman-Standard in 1946 were in the tradition of its leadership in the carbuilding industry:

The first passenger train car completed after V-J Day was delivered by Pullman-Standard to New York Central on February 20, 1946.

The first complete order for passenger train cars delivered by any carbuilder to any Railroad after V-J Day was the lot of twenty streamlined coaches shipped to Chicago and North Western by Pullman-Standard in April 1946.

The first sleeping car delivered on postwar orders was completed by Pullman-Standard in December 1946 and the first complete postwar Sleeper Streamliner (for the Great

[Advertisement]

Northern-Burlington fleet of Empire Builder Trains) was delivered early in 1947.

The first postwar Coach Streamliners, the new "Pere Marquettes," consisting of two complete seven-car trains, were delivered by Pullman-Standard to the Pere Marquette Railway in August 1946. * * *

* * * An extensive plant rehabilitation and modernization program was substantially completed by Pullman-Standard Car Manufacturing Company in 1946. This will yield increased carbuilding capacity and productive efficiency at a time when the need for delivery of railway cars is of crucial importance to the national economy. * * *

* * * The end of 1946 brought the second anniversary of the Kellogg Company's membership in the Pullman group of companies. During 1946, all remaining war-time Government contracts of the Kellogg Company were completed, and practically all of the diverse interests of this subsidiary, some engendered by the War and others by research and development, are being continued, all pointing toward the perfection of processes and the development of apparatus and materials of great value, both commercially and in the interest of National Defense. The Solexol process perfected by a new process development center of The M. W. Kellogg Company, marked a major refining advance in the important animal and vegetable fats and oils industry and holds promise of major economies in this basic industry. The Kellogg Division had an unfilled-order backlog amounting to $77,000,000 as of February 1, 1947. * * *

FINANCIAL REVIEW

* * * Following comparative summary of the detailed income account reflects the results in the three major lines of business activity conducted by the Corporation and its subsidiary companies in 1946 and 1945:

	1946		1945 (Before Renegotiation)
CAR SERVICE OPERATIONS			
Gross Revenue	$138,788,391		$161,561,518
*Net Earning prior to adjustments for 1945 lap-over items	407,274	$5,601,353	
Add: Reserve for Deferred Maintenance Returned to Income	.....	2,932,207	8,533,560
MANUFACTURING AND ENGINEERING OPERATIONS			
Sales and Miscellaneous Revenue	125,502,477		194,529,041
*Net Earning	1,792,101		4,961,319
INVESTMENT OPERATIONS			
Gross Income	2,445,868		1,023,367
*Net Earning	1,138,057		395,345
CONSOLIDATED INCOME ACCOUNT			
Total Gross Income	266,736,736		357,113,927
*Total Net Income	3,337,433		13,890,226
DEDUCT:			
Adjusted net earning of The Pullman Company, as tentatively determined, for the year 1946 placed in suspense subject to disposition under appeal now pending in the U. S. Supreme Court	1,258,323		.....
CONSOLIDATED NET INCOME AFTER ADJUSTMENT	$ 2,079,110		$ 13,890,226
Per Share	$0.64		$4.30
DIVIDENDS PAID	$ 9,689,691		$ 9,689,739
Per Share	$3.00		$3.00

*After provision for Federal taxes on income.

* * * Consolidated Working Capital stood at $168,196,520, equivalent to $52.07 per share of capital stock, and Net Book Worth amounted to $57.18 per share (excluding Reserves) at December 31, 1946. Cash and U. S. Government Securities in the Working Capital held by the Corporation and its subsidiaries on that date totaled $107,260,443, equivalent to $33.21 per share. It is expected that with increased volume of production in process, there will be increased employment of cash in financing the resulting load of inventories and receivables, but the present holding of cash and Government securities would appear to be ample for that purpose. * * *

* * * The total taxes of $13,186,162 paid or accrued by the Pullman group of companies in 1946, absorbed nearly 80% of pre-tax Net Income and were equivalent to $4.08 per share of capital stock. This left $0.64 per share as balance of Income available toward payment of dividends to Stockholders. Tax returns for the years 1938 to 1945, both inclusive, have not yet been finally audited and settled, although representatives of the Bureau of Internal Revenue have for several years been working over these returns and are still engaged on that job, with no re-assessment report as yet rendered. The total of unallocated provisions against Federal tax contingencies have been set up as of December 31, 1946, in a new "Reserve for Federal Tax Contingencies," which now amounts to $5,120,102. There will undoubtedly be extended litigation, the result of which cannot be predicted, in connection with the long delayed settlement of Federal taxes for the 1938-1945 period. * * *

* * * While it is certain that a tax carry-back credit in some amount has accrued as the result of 1946 operations, the amount of the claim for refund which would be applicable against Federal taxes paid in 1944, is still uncertain. In view of the complicated accounting situation the accounting officers of the Corporation have concurred in the recommendation of the Corporation's certifying public accountants, Messrs. Arthur Young & Company, that the resulting indeterminate claim for refund be given no effect in the financial statements for the year 1946. * * *

* * * As the result of the conformity of sleeping car property depreciation charges to the Group Depreciation Plan instituted by order of the Interstate Commerce Commission in 1937, the Depreciation Reserve carried on the books of The Pullman Company, with inclusion of credits to that account of the net result of sales of cars and scrap and with continued wartime operation and depreciation of property units already fully depreciated—all as provided for by the Group Plan, the investment of The Pullman Company in depreciable properties is now somewhat more than covered by the accumulated Depreciation Reserve. This situation is receiving the attention of the Bureau of Accounts of the Interstate Commerce Commission but no instruction has as yet been received from the Commission with respect to cessation of depreciation under the Group Plan or to disposition of the excess of depreciation reserve now recorded in the accounts. * * *

* * * Total inventories of $73,684,209 were at a record high level, 79.3% of which consisted of inventories carried by the car manufacturing subsidiary which are hedged by forward sales of the car lots for which these inventories were purchased. The ratio of car manufacturing inventories (including work in process) to current shipments is high by prewar standards, due to inability to secure timely delivery of all of the materials and component parts necessary to complete and ship out car product. Inventories of materials and supplies for the sleeping car subsidiary at the 1946 year-end also stood at a high level as result of procurement difficulties, the price level and the needs of the record volume of traffic. This inventory also reflects an expanded car repair program in progress at the year-end. * * *

DEVELOPMENTS IN CONNECTION WITH PULLMAN SEPARATION PROCEDURES

* * * Consummation of the sale of the capital stock of The Pullman Company to a Railroad Buying Group, as authorized by the District Court's Final Order of January 4, 1946, has been held up by appeals to the Supreme Court by the Department of Justice and rival bidders. Operation of the Company's sleeping car service was therefore continued throughout 1946 under present ownership and management but for the account of the Railroad Buying Group as the potential purchaser, all in accordance with Interim Order of the District Court dated March 4, 1946. *On March 31st the Supreme Court handed down a short memorandum opinion stating that the judgment below is affirmed by an equally divided court.* * * *

* * * On January 31, 1947, Examiners of the Interstate Commerce Commission recommended that the Commission approve the arrangement submitted in an application of the Railroad Buying Group for necessary Commission approval of their proposed pooling or division of traffic, service, or earnings, in the conduct of the sleeping car business. Opportunity has been afforded all parties to file exceptions to the Examiners' recommendation; argument will be presented on April 2nd, and the matter will then rest with the Commission for its decision. * * *

THE PULLMAN COMPANY

TRAFFIC AND OPERATING STATISTICS

COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31

ITEM	1942	1943	1944	1945	1946
CARS OWNED	7,121	7,747♮	8,336♮♮	7,855♮♮♮	6,183♮♮♮♮
CARS OPERATED	6,368	7,096	7,485	7,291	6,637
CAR MILES	1,071,254,181	1,222,676,452	1,326,580,210	1,346,583,539	1,235,985,406
REVENUE PASSENGERS:					
Berth	21,008,309	26,561,931	29,299,136	25,330,871	20,828,819
Seat	5,054,240	6,069,968	6,538,772	6,153,261	5,119,313
TOTAL	26,062,549	32,631,899	35,837,908	31,484,132	25,948,132
REVENUE PASSENGER MILES	19,071,589,061	25,891,465,679	28,267,090,536	27,275,788,709	20,672,366,502
OPERATING REVENUE*	$ 99,722,785	$ 124,960,365	$ 146,613,094	$ 147,914,430	$ 136,428,033
Average per Car Operated	$ 15,659.99	$ 17,609.97	$ 19,587.59	$ 20,287.26	$ 20,555.68
EXPENSES**	$ 93,235,511***	$ 120,639,898	$ 137,790,832†	$ 139,380,869‡	$ 136,020,759
Average per Car Operated	$ 14,641.25	$ 17,001.11	$ 18,408.93	$ 19,116.84	$ 20,494.31
NET CARRIER EARNINGΔ	$ 6,487,273***	$ 4,320,467	$ 8,822,262	$ 8,533,560	$ 407,274
TRAFFIC AVERAGES:					
Average Operating Revenue per Passenger	$ 3.83	$ 3.83	$ 4.09	$ 4.70	$ 5.26
Average Net Carrier Earning per Passenger	$ 0.25	$ 0.13	$ 0.25	$ 0.27	$ 0.02
Average Net Carrier Earning per Car per Day	$ 2.79	$ 1.67	$ 3.23	$ 3.21	$ 0.17
Average Mileage per Car Operated	168,225	172,305	177,232	184,691	186,227
Average Journey per Passenger (Miles)	732	793	789	866	797
Average Miles per Car per Day	461	472	485	506	510
Average Loading per Car (Passengers)	17.80	21.18	21.31	20.26	16.73

* From all sources after deducting contract revenue payments to Railroads.
** Including allocated portion of Federal taxes on income.
*** After appropriation of $2,500,000 to reserve for postwar re-adaptation of Pullman equipment.
† After credit of $2,743,910 covering 1942 Deferred Maintenance.
‡ After credit of $2,932,207 covering 1943 Deferred Maintenance.
Δ After provision for Federal taxes on income.
♮ Including 626 special Government-owned troop cars installed late in 1943 and operated for Army Transportation Corps.
♮♮ Including 1,238 special Government- and Railroad-owned troop cars installed late in 1943 and early in 1944, and operated for Army Transportation Corps.
♮♮♮ Including 1,667 special Government- and Railroad-owned troop cars installed late in 1943 and early in 1944 and in late 1945 and operated for Army Transportation Corps. Does not include 601 Lightweight Cars sold to Railroads in December 1945.
♮♮♮♮ Does not include 741 cars leased and operated.

DISPOSITION OF PROCEEDS OF SALE OF SLEEPING CAR PROPERTIES

* * * There has now been collected in cash $35,994,842 from the sale (as of December 31, 1945) of lightweight sleeping cars and certain heavyweight cars—not of sleeping car type—to individual Railroads. If and when there is completion of the sale of stock of The Pullman Company to the Railroad Buying Group under the accepted sales offer of May 12, 1945, Pullman Incorporated would realize in cash the additional sum of approximately $43,750,000 *gross* for its stock equity in the remaining properties of The Pullman Company. This amount, however, would be subject to adjustments on account of provision in the sales offer, and the eventual realization on this sale transaction would also be subject to Federal taxes, if any, that may be assessed thereon. The net effect of these and possibly other adjustments and deductions cannot now be determined. In view of the still effective suspension of the sale of Pullman Company stock to the Railroad Buying Group, the Board of Directors feel that it would be premature to make any proposals with regard to disposition of an indefinite amount of cash *yet to be received* and only upon completion of the sale of Pullman Company stock. * * *

* * * However, the Board of Directors have been considering various plans for employment of all or part of the approximately $36,000,000 of cash *already received* from above mentioned sale of cars direct to individual Railroads, and cash assets previously in hand, (a) in possible expansions along the lines of present activities of the subsidiary corporations in the Pullman group or in acquisitions of going enterprises in other lines of activity, or (b) in purchases of Pullman Incorporated stock, either on calls for tenders or in the open market, with the purpose of retiring such purchased stock and thereby effectuating a reduction in capital. The terms and conditions of any specific proposal for purchases of stock of Pullman Incorporated will come up for further consideration at the meeting of the Board of Directors on March 19, 1947, and Stockholders will be advised as to the result of such consideration, if any definite action is taken, in the statement accompanying the request for proxies for the Annual Meeting of Stockholders to be held on April 16, 1947. * * *

OUTLOOK FOR THE PULLMAN GROUP OF COMPANIES IN 1947

* * * With the delivery of many additional new sleeping cars to the fleet that will become available in 1947 and continued high individual earning and business activity, it is expected that the Pullman sleeping car service will enjoy a continuing large volume of tourist and commercial travel in that year. * * *

* * * The Pullman-Standard Car Manufacturing Company subsidiary has on its books a total of unfilled orders larger than at any other period in its peacetime history. No sound prediction can be made as to the extent to which these orders will be converted into shipments in 1947, since that will depend both on the labor situation in Pullman-Standard's own shops and the pace of operation of its principal suppliers and transport agencies. It is believed that the outlook for new car orders in 1947 has been improved by railroad rate increases made or pending. It is estimated by some of the experts on car supply, that a large potential reservoir of orders exists as the result of a net deficiency in replacement of cars removed from service in prior years. to which there should be added the normal replacement of future retirements. * * *

* * * The prospects for the Kellogg Company are bright. Their processes are coming into more general use and their backlog of unfilled orders, already large, is steadily increasing. Expanded facilities have been provided and will make possible substantially increased output if essential materials can be obtained and work stoppages can be avoided.* * *

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* * * The Board of Directors wish to express their appreciation of the continued sterling performance on the part of the official staffs and employe-organizations of the several subsidiary companies, making possible the Group's achievements during this difficult transition year that was noteworthy for the things it did not produce. * * *

* * * The Board of Directors regret that as a result (a) of the long-drawn-out litigation inflicted upon your Company following its acceptance, without any delaying appeal on its part, of the May-1944 separation decree in the anti-trust case and (b) of protracted delay by the Federal tax authorities in any action on the eight years (1938-1945) of tax returns on which audits have not yet been completed, the accounting records of the Corporation cannot furnish final and conclusive figures in several important particulars, pending decisive action on these matters by the Courts and other Governmental agencies involved. In the judgment of the Board, every proper effort has been made by the management and its counsel, with due regard to protection of important rights and interests of the Stockholders, to expedite settlement of these many involved legal and administrative matters.* * *

Respectfully submitted on behalf of the Board of Directors,

DAVID A. CRAWFORD,
President

March 15, 1947

Canadian Pacific Railway Company

SIXTY-SIXTH ANNUAL REPORT OF THE DIRECTORS

(Abridged)

To the Shareholders:

The year 1946 provided welcome opportunities for the re-establishment by your Company of services which were suspended during the war, and for introducing further improvements in the field of transportation. The difficulties which the transition period presented were largely surmounted. The Dominion enjoyed general prosperity and the demand for rail transportation was well sustained.

The distorted relationship between the price received for transportation service and the prices paid for labour and materials prevented your Company from earning the reasonable return, which might have seemed assured under these favourable business conditions. Although gross earnings in 1946 were 21 per cent. higher than in 1928, the previous peacetime record year, net earnings were 61 per cent. below the 1928 net and represented a return of only 1.6 per cent. on the investment in railway property, compared with 5 per cent. in that earlier peak year. It is necessary to go back to certain years of depression, or to the early days of your Company's operations when gross earnings were well below $100 million, to find net earnings as low as those realized in 1946; and there is no record of an equally low rate of return on investment.

Canadian freight rates, lower than those charged in any other country in the Commonwealth, in Europe or in America, have remained virtually unchanged for more than two decades. Throughout this long period freight revenues earned by your Company have averaged less than one cent per ton of freight hauled one mile. On the other hand, progressive increases have occurred in wage rates and material prices. As a result of such increases since 1939, the costs of operation in 1946 were $57 million greater than they would have been had prices and wages remained at their 1939 levels. Because this situation imperils the ability of the railway industry to continue to provide modern and efficient transportation service, your Company in association with the other railways in Canada has filed with the appropriate regulatory bodies an application for authority to make a general increase of 30 per cent. in freight rates, with some exceptions.

Fixed charges were reduced for the sixth consecutive year, being $1,059,016 less than in 1945. There was an improvement of $7,672,837 in income from investments and in the earnings from ocean steamships and other subsidiary operations. After providing for the four per cent. dividend on Preference Stock, the earnings per share on Ordinary Stock from all sources amounted to $1.53 compared with $1.98 in 1945 and $2.21 in 1944.

The accounts of your Company show the following results for the year ended December 31, 1946:

Income Account

Gross Earnings		$292,495,828
Working Expenses (including taxes)		271,652,778
Net Earnings		$ 20,843,050
Other Income		22,779,794
		$ 43,622,844
Fixed Charges		18,488,113
Net Income		$ 25,134,731
Dividends:		
Preference Stock		
2% paid August 1, 1946	$ 2,278,841	
2% payable February 1, 1947	2,278,841	
	$ 4,557,682	
Ordinary Stock		
2% paid October 1, 1946	6,700,000	
		11,257,682
Balance transferred to Profit and Loss Account		$ 13,877,049

Profit and Loss Account

Profit and Loss Balance December 31, 1945		$262,772,828
Final dividend of 3 per cent. on the Ordinary Stock, declared from the earnings of the year 1945, paid March 30, 1946		10,050,000
		$252,722,828
Balance of Income Account for the year ended December 31, 1946	$ 13,877,049	
Portion of steamship insurance recoveries representing compensation for increased cost of tonnage replacement	2,016,572	
Net exchange credit in respect of expenditures for new steamships and steamship insurance recoveries	708,746	
	$ 16,602,367	
Deduct:		
Miscellaneous—Net Debit	198,223	16,404,144
Profit and Loss Balance December 31, 1946, as per Balance Sheet		$269,126,972

(The final dividend of 3 per cent. on the Ordinary Stock for the year 1946 which was declared subsequent to the end of the year and is payable March 31, 1947, amounting to $10,050,000, is not deducted from the Profit and Loss balance shown above.)

Railway Operations

GROSS EARNINGS in 1946 decreased $23,613,530 or 7.5% from 1945. The year's gross earnings have been exceeded only three times, in 1943, 1944 and 1945.

FREIGHT EARNINGS accounted for $218,550,608, or 75% of the gross earnings. They were $9,156,878 or 4.0% lower than in 1945. Exclusive of earnings from grain and grain products, freight earnings were 3.2% higher than in the previous year, with the increases being recorded principally for such commodities as coal, paper, petroleum, fruits and vegetables and for less-than-carload traffic.

Grain handlings on your Company's western lines were 116 million bushels less than in 1945, and gross earnings from grain and grain products, decreased $14,532,736. As a result of the early exhaustion of the relatively meager supplies of wheat provided by the 1945 crop, it was not until the 1946 crop had been harvested that a large volume of wheat became available for movement. By the time the crop began to move there was also an increased movement in other traffic, which put a heavy strain on the available equipment.

The volume of revenue freight traffic handled totalled 23,479 million ton miles, a decrease of 3,772 million from 1945. Revenue received for hauling one ton a distance of one mile averaged 0.93c. compared with 0.83c. last year. The average haul decreased by 40.3 miles. These two changes were the result, mainly, of the smaller proportion of grain carried.

PASSENGER EARNINGS accounted for $45,380,645 or 15.5% of the gross earnings. This represented a decline of $11,473,652, or 20.2%, compared with 1945. The sharp drop in revenues was due principally to the disappearance of military traffic. Civilian travel was at a very high level, and a capacity business was handled during the tourist season. During the year the repatriation of Canadian service personnel and the movement of their dependents to Canada were virtually completed. In handling both of these your Company played a major role.

Sleeping, dining and parlour car, and news service revenues all declined as a result of the decrease in passenger business.

A total of 15,583,990 passengers was carried an average distance of 136.4 miles, a decrease from the previous year of 12.2% in the number of passengers and of 25.3 miles in the average passenger journey. Revenue received per passenger mile averaged 2.12 cents compared with 1.97 cents in 1945.

WORKING EXPENSES decreased $8,402,246, or 3.0%. Wages and salaries increased $7,281,196. There was a decrease in total

Comparisons at a Glance

	1946	1945
Gross Earnings	$292,495,828	$316,109,358
Working Expenses (including taxes)	271,652,778	280,055,024
Net Earnings	20,843,050	36,054,334
Other Income	22,779,794	15,106,957
Fixed Charges	18,488,113	19,547,129
Net Income	25,134,731	31,614,162
Dividends*	21,307,682	21,781,500
Balance Available for Modernization and Other Corporate Purposes	3,827,049	9,832,662
Ratio of Working Expenses to Gross Earnings	92.87%	88.59%
Payroll Charged Working Expenses	$140,874,155	$133,592,959
Average Annual Wage per Employee	$2,302	$2,168
Average Hourly Wage per Employee	92c	85c

* 4 per cent. on Preference Stock, and 5 per cent. on Ordinary Stock of which 3 per cent. was declared after the close of the year.

hours worked but an increase of 2 cents per hour granted to maintenance of way employees effective February 15, 1946, a further 8 cents to such employees and 10 cents to all other employees effective June 1, 1946, added approximately $8,700,000 to the year's expenses. Expenses for material and supplies, taxes and other items decreased $15,683,442.

The ratio of working expenses to gross earnings was the highest on record, with expenses absorbing 93 cents of every dollar earned for railway service.

MAINTENANCE EXPENSES totalled $109,691,600 for the year, of which $50,492,658 was for the maintenance of way and structures and $59,198,942 for the maintenance of equipment. These expenses were $8,463,608 less than in 1945 and represented 37% of gross earnings, the same ratio as in the previous year.

Track maintenance included the placing of 1,021,942 untreated and 2,144,095 treated ties, the laying of 511 single track miles of new rails and application of 16.7 track miles of rock ballast. The Sperry detector car, which is used in the examination of rails for hidden defects, covered 8,687 miles of track.

Complete overhauls were given to 729 locomotives, 26,489 freight train cars and 1,169 passenger train cars. At the end of the year, 91.6% of locomotives and 97.8% of freight cars were in serviceable condition, compared with 90.9% and 97.4% respectively at the end of 1945.

TRANSPORTATION EXPENSES amounted to $117,897,963, an increase of $3,172,602 over 1945. Chiefly as a result of the smaller volume of grain, in relation to other freight, the average freight train load declined from 1,790 tons to 1,688 and other indices of operating efficiency were affected similarly. The number of passengers per train also decreased. The modification of controls which existed during wartime and which had necessitated the full loading of cars, the increase in less-than-carload shipments, the higher proportion of short haul traffic and the widespread adoption of a shorter work week in industry all combined to impair operating performance and, with the increase in wage rates and material prices, to raise the cost of transportation in relation to revenues. Transportation expenses thus took 40 cents of every railway dollar as compared with 36 cents in 1945. The falling-off in operating performance may be seen from the following comparisons:

	1946	1945
Freight Train Load—gross tons	1,688	1,790
Freight Car Load—tons	30.8	33.7
Gross Ton Miles per Freight Train Hour	27,187	28,873
Freight Car Movement—miles per car day	44.3	48.2
Freight Train Speed—miles per hour	16.1	16.1
Passenger Miles per Train Mile	105	138

RAILWAY TAX ACCRUALS amounted to $16,877,264, including a provision of $13,000,000 for Dominion Income and Excess Profits Taxes, which was $5,200,000 less than the 1945 provision.

NET EARNINGS amounted to $20,843,050, a decrease of $15,211,284, or 42.2%, from 1945. They represented only 7% of gross earnings compared with 11% in 1945, 14% in 1944 and an average of 18% in the decade prior to the war.

Other Income

Other Income amounted to $22,779,794, an increase of $7,672,837.

The net earnings of ocean and coastal steamships increased by $2,139,299, due principally to the additional earnings derived from the five new Beaver ships which came into service during the year.

While net earnings of your hotels in 1945 were the highest up to that time, net earnings in 1946 were $383,800 higher. The summer resort hotels, which had remained closed during the war years, were all reopened and enjoyed the largest trade in their history. A record volume of business was done at your city hotels and the larger proportion of civilian business resulted in improved earnings.

There was a decline of $214,671 in the net earnings of the communications department, due wholly to increased wage rates.

Dividend income increased by $3,795,097. Dividends received from the Consolidated Mining and Smelting Company of Canada, Limited amounted to $7,150,625, and were at the rate of $4.25 per share, compared with $2.50 in 1945. An initial dividend of $2.50 per share was declared on the Minneapolis, St. Paul & Sault Ste. Marie Railroad Company Voting Trust Certificates from which your Company received $897,855.

Net income from interest, exchange, separately operated properties and miscellaneous sources increased $1,521,456. There was an increase of $373,237 in interest received on Dominion of Canada Bonds, and a decrease of $304,930 in interest received on farm land contracts. Exchange account showed an improvement of $882,475 as a result of the revaluation of the Canadian dollar in relation to the currencies of the United Kingdom and the United States.

Fixed Charges

Fixed charges amounted to $18,488,113, a decrease of $1,059,016 from 1945. The principal item contributing to this reduction was the redemption of the Thirty Year 4½% Collateral Trust Gold Bonds for which provision had been made at the end of 1945.

The present level of fixed charges is more than $8 million below the 1938 peak.

Net Income and Dividends

Net income for the year was $25,134,731, from which dividends aggregating $21,307,682 were declared. These comprised two half-yearly dividends on the Preference Stock of 2 per cent. each and dividends on the Ordinary Stock of 2 per cent. paid October 1, 1946, and of 3 per cent. payable March 31, 1947. At the time of the declaration of the last mentioned dividend, your Directors issued a statement which concluded as follows:

"The Directors deem it desirable to point out that this dividend of three per cent. making a total dividend payment of five per cent. in respect of operations for the year 1946, is made possible only by a considerable increase in the income from investments and in the earnings from Ocean Steamships. Fixed charges have been sharply reduced but net revenue also was substantially reduced because of the impact of large wage increases established in 1946 and because of increases in cost of materials and supplies. Without the assistance from investments and Steamships the payment of a five per cent. dividend for the year would have been impossible. The Directors wish to add that future dividend action must necessarily depend upon a material improvement in railway revenues."

Balance Sheet

Total assets at the end of the year amounted to $1,622,445,668, an increase of $16,550,036 during the year. There was a net increase of $31,459,345 in Property Investment, details of which are shown in a supporting schedule to the Balance Sheet.

Effective November 7, 1946, Boston & Maine Railroad and your Company consummated with The Connecticut and Passumpsic Rivers Railroad Company the arrangements authorized in Resolution adopted at the Annual Meeting in 1945. As part of the transactions, there has been included under the caption "Improvements on Leased Property" $3,336,212 representing cost to your wholly owned subsidiary, Newport & Richford Railroad Company, of 69 miles of railway extending from Wells River, Vermont, to the international boundary.

Expenditures on five Beaver steamships, now in service, totalled $8,541,793, and on steamships under construction $1,551,515, payments being made from the Steamship Replacement Fund. The Great Lakes Steamship "Alberta," which had been in service since 1884, was sold during the year.

Current assets amounted to $139,681,085 and current liabilities were $48,717,809. Liability for payrolls included $6,342,322 covering the retroactive portion of the wage awards which was paid on January 13, 1947.

Finance

In February, in accordance with the terms of the Lease covering the 3% Equipment Trust, Series F, 1943, the total amount outstanding was prepaid. A new Equipment Trust, designated as Series F, 1943 (Refunding), was created (dated as of February 1, 1946) in the principal amount of $12,600,000. The certificates issued thereunder mature in equal semi-annual instalments from August 1, 1946, to February 1, 1953, inclusive, are payable in United States currency, and bear interest at 1⅜% per annum.

In June, in accordance with the terms of the Lease covering the

2½% Equipment Trust, Series G, 1944, the total amount outstanding was prepaid. A new Equipment Trust, designated as Series G, 1944 (Refunding), was created (dated as of June 1, 1946) in the principal amount of $19,500,000. The certificates issued thereunder mature in equal semi-annual instalments from December 1, 1946, to December 1, 1953, inclusive, are payable in United States Currency, and bear interest at 1½% per annum.

The net amount of serial equipment obligations paid during the year was $9,564,000.

During the year, $540,000 4% Collateral Trust Bonds, maturing July 2, 1949, were purchased and cancelled.

The 5% First Mortgage Bonds of your subsidiary, the Algoma Eastern Railway Company, amounting to $2,226,500 maturing March 1, 1961, have been called for redemption on March 1, 1947, under the terms of the indenture. At December 31, your Company had placed this subsidiary in funds to meet the call, which funds have been deposited with the Trustee for the issue.

The foregoing transactions resulted in a reduction in funded debt amounting to $10,104,000, the discharge of a contingent liability of $2,226,500, and a reduction of $943,000 in the amount of Consolidated Debenture Stock pledged as collateral.

Wage Negotiations

In July, 1946, the National War Labour Board, acting on applications by the organized employees of Canadian railways for wage increases, referred the issues back to the railways and their employees for negotiation. During the course of these negotiations your Company found it necessary to withdraw because the existing level of its earnings made it impossible to offer any increase in wage rates unless compensatory increases in revenues were assured. However, the Canadian National and the Ontario Northland Railways concluded agreements with their employees granting them an increase of 10 cents per hour, or its equivalent, retroactive to June 1, 1946, and this agreement was approved by the National War Labour Board. Your Company's employees subsequently made an application to the Board for an order directing the same wage adjustments as had been provided for in the approved agreement.

In its presentation to the Board your Company recognized the long established practice of maintaining parity of wage rates for employees of the principal steam railways, but urged its inability to pay increased wages and the need for deferring any increases until effective steps could be taken with the approval of the competent authorities to provide the additional revenues required.

Notwithstanding these submissions your Company was directed to increase the wages of its employees by 10 cents per hour, or its equivalent, retroactive to June 1, 1946. The effect of this order was to add an annual charge of approximately $15,300,000 to working expenses on the basis of 1946 employment.

Canadian Pacific Air Lines, Limited

The general improvement in traffic which your Air Lines experienced in the latter half of 1945 continued in the current year with the result that operations showed a net profit, after depreciation, of $372,371. This compares with a loss of $308,066 in the previous year. The important factors in this improved showing were the continuance of greater mining activities throughout the country and the increased operations of the Survey Department. The improvement in the results of the subsidiary company—Quebec Airways Limited—also contributed to the favourable showing.

The aircraft operated by your Air Lines flew a total of 6,813,907 miles in revenue service during 1946, as compared with 5,373,403 miles in the previous year. Revenue passengers carried totalled 175,461 as against 125,110 in 1945, freight transported was 16,514,741 pounds compared with 9,419,556, and mail amounted to 1,722,733 pounds, as compared with 1,253,537 pounds. The 1946 operating ratio was 95.3%, as against 107.3% in 1945.

During the year, an arrangement was consummated whereby all engine overhaul work will eventually be performed by your Company at its railway shops in Winnipeg. Further economy has been effected through the centralization at Stevenson Field in Winnipeg of airframe overhaul work previously performed at four points—Winnipeg, Edmonton, Montreal and Lac à la Tortue.

The Air Transport Board is engaged in conducting an examination of existing air licences in Canada. Representations have been made to the Board to protect the interests of your Air Lines in those licences now operated and which it is considered should be retained. In addition, application has been made for licences to operate certain additional routes.

Minneapolis, St. Paul & Sault Ste. Marie Railroad Company

On March 13, 1946, a dividend of $2.50 per share was declared on the capital stock of this Company, amounting to $1,797,760. In declaring the dividend consideration was given to the earnings for the sixteen month period from September 1, 1944 (date of reorganization), to December 31, 1945.

Gross earnings of the Soo Line in 1946 amounted to $27,970,148, a decrease of $575,382 from the previous year. Freight earnings were sustained to some extent by the authorization of an interim increase of approximately 6.5% in freight rates, effective July 1, 1946. Working expenses were $26,952,080, an increase of $1,210,784 attributable wholly to increased wage rates. Net earnings of $1,018,068 were $1,786,166 less than in 1945. Net income for the year, after provision for fixed and contingent charges, amounted to $154,188 compared with $1,754,433 in the previous year.

The Wisconsin Central Railway continues to be operated by the Soo Line as agent for the Trustees of the Wisconsin Central. A plan of reorganization which contemplates a continuance of the present operating arrangements was issued by the examiner of the Interstate Commerce Commission under date of August 1, 1946. Exceptions to the plan have been filed with the Commission by the parties in interest, and it is expected that the Commission's plan will be issued in the near future.

The Duluth, South Shore & Atlantic Railway Company

The plan of reorganization referred to in the last Annual Report was filed by the South Shore Company with the Interstate Commerce Commission and the Court, and a public hearing was held before one of the Commission's examiners commencing July 22, 1946. His report had not been issued at the end of the year.

The changes affecting earnings and working expenses referred to in connection with the Soo Line are also reflected in the results of the South Shore. Gross Earnings were $67,152 higher than in 1945, but working expenses increased by $466,518. Net earnings for the year were only $10,775, a decrease of $399,366 from the previous year.

Improvements and Services

The service to patrons in branch line territory in certain areas of Western Canada has been improved by the inauguration of a system of co-ordinated rail and highway truck transportation.

New rolling stock placed in service during the year included 36 Pacific type steam locomotives and 14 Diesel switching locomotives; 623 steel box and 395 50-ton refrigerator cars. Two of the Pacific type delivered to your Company were the first Canadian locomotives to be equipped with all-welded boilers instead of the standard riveted construction.

Your Company has been represented in the Orient since 1886 and with the re-opening during the year of your offices at Hong Kong and Shanghai, a valued connection was re-established. Considerable repairs were necessary at the office buildings in both cities. Pending the resumption of Canadian Pacific Steamship service between the Pacific Coast of Canada and the Orient, the staffs of your two agencies are engaged in handling enquiries concerning passenger travel and freight traffic.

Steamship Replacement

During 1946 your Company's ocean fleet was augmented by the addition of five ships—Beaverdell, Beaverglen, Beaverlake, Beaverburn and Beaverford. The first three of these ships were specially designed and built for your Company, for freight service between Canada and the British Isles. Beaverburn and Beaverford were purchased from the Government of the United Kingdom in May for operation in the Pacific but have been placed temporarily in the Atlantic service. These two vessels were completed in 1944 and have the same general dimensions as the other Beavers, but different cargo handling arrangements.

The five Beavers combined carried 216,339 tons of cargo to the United Kingdom during the year and returned with 64,252 tons.

The Beavercove, fourth of the Atlantic Beavers, was launched

[Advertisement]

July 16, 1946, and is expected to commence service in the early summer of 1947.

The Duchess of Richmond, to be renamed Empress of Canada, is undergoing overhaul and reconditioning after extensive service as a troop transport. She is expected to return to the Atlantic service in May 1947, with added speed and improved accommodation for the comfort of passengers.

The Duchess of Bedford has been retained by the Admiralty in transport service longer than had been anticipated but her release is expected at an early date. She will undergo overhaul and reconditioning before returning to regular service.

On August 2, 1946, the Princess Kathleen returned to Victoria, B. C., for overhaul and reconditioning, after five years of war service as a troopship. It is expected she will resume regular operations in the British Columbia Coast Steamship Service in the early summer.

At the end of the year, preliminary work on the two passenger steamships being constructed for the British Columbia Coast Service was well in hand. They are to be delivered in 1948.

Capital Appropriations

In anticipation of your confirmation, capital appropriations in addition to those approved at the last Annual Meeting were authorized by your Directors during the year in the amount of $1,514,798.

Your approval will be requested also for capital appropriations of $30,489,352 for the year 1947. The principal items are as follows:

Additions and betterments to stations, freight sheds, coaling and watering facilities and engine houses	$ 924,702
Replacement and enlargement of structures in permanent form	214,838
Tie plates, rail anchors and miscellaneous roadway betterments	1,118,763
Replacement of rail in main line and branch line tracks with heavier section	134,422
Installation of automatic signals	792,206
Additional terminal and side track accommodation	196,567
Additions and betterments to shop machinery	148,617
New rolling stock	25,158,898
Additions and betterments to rolling stock	1,106,267
Additions and betterments to communication facilities	620,818

The appropriations for new rolling stock make provision for 13 Diesel switching locomotives, 3,345 freight train cars and 26 passenger train cars.

Directorate

Mr. Louis L. Lang was appointed a Director to fill the vacancy created by the death of Mr. Selwyn G. Blaylock and Mr. George A. Walker, K.C., Vice-President of your Company, was appointed a member of the Board to succeed Mr. Morris W. Wilson, C.M.G. Hon. F. Philippe Brais, C.B.E., K.C., was appointed a Director in place of the late Mr. Aimé Geoffrion, K.C.

Mr. George A. Walker, K.C., and Hon. Charles A. Dunning, P.C., were appointed members of the Executive Committee of the Board to succeed Mr. D. C. Coleman, C.M.G., resigned, and the late Mr. Aimé Geoffrion, K.C., respectively.

After the close of the year Mr. D'Alton C. Coleman, C.M.G., Chairman and President of your Company, expressed his desire to retire from active service on February 1, 1947. His request was acceded to with regret. Mr. Coleman resigned as of the date named, as a member of the Executive Committee but your Directors are gratified that he continues as a member of the Board.

Your Directors record that for a period of more than forty-seven years Mr. Coleman, by his sound and practical knowledge of railway operation, and his executive ability, rendered outstanding service to your Company. After occupying successively higher positions in the Operating Department of the railway from those of junior grade to that of Vice-President of Western Lines,

Canadian Pacific Railway Company
General Balance Sheet, December 31, 1946

Assets

Property Investment:		
Railway, Rolling Stock and Inland Steamships	$855,594,043	
Improvements on Leased Property	105,533,177	
Stocks and Bonds—Leased Railway Companies	134,170,939	
Ocean and Coastal Steamships	49,950,819	
Hotel, Communication and Miscellaneous Properties	97,780,479	
		$1,243,029,457
Other Investments:		
Stocks and Bonds — Controlled Companies	$ 70,379,542	
Miscellaneous Investments	46,805,482	
Advances to Controlled and Other Companies	6,013,140	
Mortgages Collectible and Advances to Settlers	1,346,430	
Deferred Payments on Lands and Townsites	13,501,905	
Unsold Lands and Other Properties	14,041,912	
Unexpended Equipment Trust Deposit	5,614,623	
Maintenance Fund	25,200,000	
Insurance Fund	11,789,329	
Steamship Replacement Fund	39,275,550	
		233,967,913
Current Assets:		
Material and Supplies	$ 34,987,234	
Agents' and Conductors' Balances	12,800,272	
Miscellaneous Accounts Receivable	14,023,405	
Dominion of Canada Securities	31,861,000	
Cash	46,009,174	
		139,681,085
Unadjusted Debits:		
Insurance Prepaid	$ 247,983	
Unamortized Discount on Bonds	4,556,321	
Other Unadjusted Debits	962,909	
		5,767,213
		$1,622,445,668

Liabilities

Capital Stock:		
Ordinary Stock	$335,000,000	
Preference Stock—4% Non-cumulative	137,256,921	
		$ 472,256,921
Perpetual 4% Consolidated Debenture Stock	$326,124,729	
Less: Pledged as collateral to bonds and equipment obligations	30,686,500	
		295,438,229
Funded Debt		83,565,000
Current Liabilities:		
Pay Rolls	$ 12,728,003	
Audited Vouchers	8,375,608	
Net Traffic Balances	3,387,007	
Miscellaneous Accounts Payable	8,496,302	
Accrued Fixed Charges	1,031,995	
Unmatured Dividend Declared	2,278,841	
Other Current Liabilities	12,420,053	
		48,717,809
Deferred Liabilities:		
Dominion Government Unemployment Relief	$ 1,447,223	
Miscellaneous	2,791,824	
		4,239,047
Reserves and Unadjusted Credits:		
Maintenance Reserves	$ 25,200,000	
Depreciation Reserves	302,224,698	
Investment Reserves	3,363,502	
Insurance Reserve	11,789,329	
Contingent Reserves	5,188,998	
Unadjusted Credits	6,024,992	
		353,791,519
Premium on Capital and Debenture Stock		34,458,562
Land Surplus		60,851,609
Profit and Loss Balance		269,126,972
		$1,622,445,668

ERIC A. LESLIE,
Vice-President and Comptroller.

To the Shareholders,

Canadian Pacific Railway Company:

We have examined the above General Balance Sheet of the Canadian Pacific Railway Company as at December 31, 1946, the Income and Profit and Loss Accounts for the year ending on that date and other related schedules, and have compared them with the books and records of the Company.

The records of the securities owned by the Company at December 31, 1946, were verified by an examination of those securities which were in the custody of its Treasurer and by certificates received from such depositaries as were holding securities in safe custody for the Company.

In our opinion the General Balance Sheet, Income and Profit and Loss Accounts and the other related schedules are properly drawn up so as to present fairly the financial position of the Company at December 31, 1946, and the results of its operations for the year then ended, according to the best of our information and the explanations given to us and as shown by the books of the Company.

PRICE, WATERHOUSE & CO.,
Chartered Accountants.

Montreal, March 7, 1947.

he was called to Headquarters in Montreal in 1934 as Vice-President of the Company and appointed a Director and a member of the Executive Committee of the Board. In 1942 he was elected President and, in the following year, Chairman and President of your Company; in these capacities he was responsible for the chief directional control of your Company's vast and varied contribution to the war effort.

Mr. W. M. Neal, C.B.E., Vice-President of your Company and a Director and member of the Executive Committee of the Board, was elected Chairman and President effective February 1, 1947.

The undermentioned Directors will retire from office at the approaching Annual Meeting. They are eligible for re-election:

MR. EDWIN G. BAKER
MR. LOUIS L. LANG
MR. HOWARD P. ROBINSON
MR. ROBERT C. STANLEY

Officers and Employees

The work of the Safety Bureau and Safety Agents has been intensively directed toward prevention of train accidents and personal injuries. Further improvements were made in the operation of Employees' Suggestion Bureau, as a result of which a substantial increase in suggestions was obtained, with a corresponding gain in the ideas it was found possible to use.

Before concluding this Report your Directors again desire to record their sincere appreciation of the continued loyal co-operation of officers and employees in all branches of the service, which is so essential to your Company's welfare.

For the Directors,
W. M. NEAL, *President.*

MONTREAL, MARCH 10, 1947.

[Advertisement]

(*Continued from page 815*)

of representatives of 40 organizations to organize a nationwide office standards project, Cyril Ainsworth, technical director of the association, has announced.

The diction and drama class of the **Railway Business Woman's Association of Chicago** will present a mystery play—"In the Arms of the Law"—on April 24, at 8:15 p. m., at the Eleventh Street theatre, Chicago.

A meeting of the **Railway Club of Pittsburgh** (Pa.) has been scheduled for 8 p. m. April 27, at the Fort Pitt Hotel, Pittsburgh. William R. Gray, railway development engineer, will present a paper entitled "The Pittsburgh Tubular Railway Axle."

Financial

BALTIMORE & OHIO.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has authorized this road to assume liability for $5,650,000 of series T equipment trust certificates, the proceeds of which will be applied toward the purchase of 2,000 hopper cars, as outlined in *Railway Age*, March 29, page 675. The certificates will mature in 10 equal annual installments starting April 1, 1948. The report also approves a selling price of 99.276 for the certificates with a 1⅞ per cent interest rate, the bid of Halsey, Stuart & Co., on which basis the average annual cost will be approximately 2.02 per cent.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to issue $2,800,000 of 10-year equipment trust certificates to finance 75 per cent of the cost of acquiring 22 Diesel-electric locomotives which will enable the applicant "to completely Dieselize its entire railroad system." Twelve of the new locomotives would be acquired from the Electro-Motive Division of the General Motors Corporation, that group to include 5 3,000-hp. passenger locomotives consisting of 10 1,500-hp. units at $151,006 per unit; 6 1,500-hp., single-unit road switchers at $126,007 each; and 1 1,500-hp. single-unit road freight "B" type locomotive at $128,398. Eight of the remaining 10 would be acquired from the American Locomotive Company and 2 from Fairbanks, Morse & Co., all of these to be 1,500-hp., single-unit road switchers at $125,000 each. The most favorable bid received for the proposed issue was that of Halsey, Stuart & Co.—98.52 with a 2 per cent interest rate which has been accepted subject to commission approval. The certificates would mature in 10 annual installments of $280,000 each on each May 1 from 1948 to 1957; they were reoffered to the public at prices yielding from 1.35 per cent to 2.35 per cent, according to maturity.

MISSOURI-KANSAS-TEXAS OF TEXAS.—*New Directors.*—The membership of the board of directors of this road, a subsidiary of the Missouri-Kansas-Texas, has been increased to 15 from 9. Four new directors have been elected. They are Adolphus Andrews, president of the Waples Platter Company, Dallas, Tex.; Arthur S. Bird, chairman of the Bird-Shankle Corporation, San Antonio; Clyde J. Loftis, manager, Kraft Cheese Company, Denison; and J. S. Abercrombie of the J. S. Abercrombie Company, Houston. Two directorships remain to be filled.

NEW YORK, CHICAGO & ST. LOUIS—CHESAPEAKE & OHIO.—*W. & L. E. Stock.*—These roads, together with the Alleghany Corporation, have jointly applied to the Interstate Commerce Commission for authority for the Nickel Plate to purchase 115,369 shares of prior lien stock and 1,658 shares of preferred stock of the Wheeling & Lake Erie now held by the C. & O., in addition to 54 shares of W. & L. E. prior lien stock now held by Alleghany and 670 shares of W. & L. E. stock held by individual owners. At the same time, the Nickel Plate seeks commission authority to issue $6,000,000 in notes, and to pledge as collateral for them $10,000,000 of its series E refunding mortgage 3½ per cent bonds. The notes would be sold on the basis of competitive bidding and would be payable in 16 semi-annual installments of $375,000 each, with the proceeds to be applied toward the purchase of the stock.

With respect to the stock, the Nickel Plate said that the C. & O. has agreed to sell its prior lien holdings for $96 per share and its preferred holdings for $97.35 per share. These prices represent book cost to the C. & O. The Nickel Plate will pay $96 per share for the stock held by Alleghany. It said that it has not entered any negotiations with respect to acquiring the 670 shares held by individuals. The Nickel Plate said that its acquisition of W. & L. E. stock now held by the C. & O. and Alleghany will increase its holdings from about 47 per cent to 68 per cent of the W. & L. E.'s outstanding stock of all classes.

The applicants said that the proposed transaction is a preliminary step toward effecting a merger of the Wheeling and the Nickel Plate. They added that the Nickel Plate board of directors consider it essential that it acquire sufficient additional shares of W. & L. E. stock to protect its interest in that road and to facilitate a merger or consolidation which, they said, would result in operating economies and improved service.

As noted in *Railway Age* of March 22, page 636, the commission has authorized the Nickel Plate and, through that company, the C. & O. and Alleghany, to acquire control, through stock ownership, of the W. & L. E. In that proceeding, Finance Docket No. 15181, the Nickel Plate acquired from the C. & O. 78,145 shares of W. & L. E. common stock at $53.24 per share, thus building its holdings of W. & L. E. voting shares to 46.9 per cent of the total.

PERE MARQUETTE.—*Preferred Dividend.*—This road has declared a dividend of $1.25 a share on the 5 per cent prior preferred stock, payable on account of accumulations on May 1 to stockholders of record on April 7. The previous payment was $11.25 a share on November 1, 1937. After payment of the dividend, arrears on the stock will total $36.25 a share.

PETALUMA & SANTA ROSA.—*Acquisition.*—This road has applied to the Interstate Commerce Commission for authority to acquire and operate an abandoned portion of the Northwestern Pacific's Sebastopol branch, extending approximately 2 miles from a point near Leddy, Cal., to the latter road's yard limits at Santa Rosa.

PENNSYLVANIA-DELAWARE & HUDSON.—*Bonds.*—These roads have jointly applied to the Interstate Commerce Commission for authority to assume equal liability for $2,186,000 principal amount of series B first and improvement mortgage bonds, which the Wilkes-Barre Connecting, in the same application, seeks commission authority to issue. The bonds, to bear interest at the rate of 3 per cent, would be payable semi-annually and would be due May 1,

1967. The P. R. R. and the D. & H. each would guarantee $1,093,000 of the principal amount of the bonds, after surrendering for cancellation on May 1 the same respective amounts of the Wilkes-Barre Connecting's first and improvement series A 3 per cent mortgage gold bonds in exchange for the new issue.

RAILWAY EXPRESS AGENCY.—*New Directors.*—Frank J. Gavin, president of the Great Northern, and Armand T. Mercier, president of the Southern Pacific, have been elected directors of the agency to succeed Ralph Budd and Thomas Schumacher, respectively.

RICHMOND, FREDERICKSBURG & POTOMAC.—*Notes.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue and sell at par $1,995,000 of notes, the proceeds of which will be applied toward the redemption of $2,000,000 of its outstanding 6 per cent non-voting common stock. The new issue will consist of three negotiable promissory notes, each in the principal amount of $665,000, to be payable serially in 12, 24 and 36 months. The notes have been awarded to the Provident Trust Company of Philadelphia, Pa., whose bid of par with a 1.6 per cent interest rate had been accepted subject to commission approval.

SAN ANTONIO BELT & TERMINAL.—*New Directors.*—T. F. Murchison, an oil operator of San Antonio, Texas, and Nat Goldsmith, a partner in the Guggenheim-Goldsmith Company, San Antonio wholesalers, have been elected directors of this road, a subsidiary of the Missori-Kansas-Texas. Before the election, the membership of the board of directors had been increased to 9 from 7.

SOUTH GEORGIA.—*Ownership of Stock.*—Brooks-Scanlon, Inc., of Foley, Fla., has asked the Interstate Commerce Commission to approve its proposed purchase of 304½ shares of this road's 900 shares of preferred stock and 1,536 shares of the 4,870 shares of common outstanding. The stock would be acquired from George W. Harmony of Live Oak, Fla., the price of the preferred being approximately $60 per share and that of the common approximately $7.66 per share. The applicant identifies itself as a manufacturer of timber, but points out that its charter powers are "very broad," including power "to purchase and operate railroads." The application further reveals that the applicant and its stockholders own a controlling interest in the Live Oak, Perry & Gulf; but no merger is proposed. With respect to the South Georgia, the application says that road "has been disintegrating rapidly and the scrapping thereof was seriously contemplated"; but if the proposed stock purchase is approved the road "will be continued in operation and the service to the public greatly improved."

Average Prices Stocks and Bonds

	April 15	Last week	Last year
Average price of 20 representative railway stocks..	44.36	47.05	63.68
Average price of 20 representative railway bonds..	88.99	90.56	102.33

Dividends Declared

Chicago, Milwaukee, St. Paul & Pacific.—$2.50, irregular, payable May 15 to holders of record May 1.

Cleveland, Cincinnati, Chicago & St. Louis.—5% preferred, $1.25, quarterly, payable April 30 to holders of record April 18.

Elmira & Williamsport.—$1.14, semi-annually, payable May 1 to holders of record April 19.

Georgia.—$1.75, quarterly, payable April 15 to holders of record April 1.

Goshen & Deckertown.—40¢, annual, payable April 21 to holders of record April 8.

Little Miami.—spec. guaranteed, 50¢, quarterly, payable June 10 to holders of record May 23; spec. guaranteed, 50¢, quarterly, payable September 10 to holders of record August 22; spec. guaranteed, 50¢, quarterly, payable December 10 to holders of record November 21; spec. guaranteed, 50¢, quarterly, payable March 10 to holders of record February 23; original capital, $1.10, payable June 10 to holders of record May 23; original capital, $1.10, payable September 10 to holders of record August 22; original capital, $1.10, payable December 10 to holders of record November 21; original capital, $1.10, payable March 10 to holders of record February 23.

Northern of New Hampshire.—$1.50, quarterly, payable April 30 to holders of record April 17.

Wheeling & Lake Erie.—4% prior lien, $1.00, quarterly; 5½% preferred, $1.37½, quarterly, both payable May 1 to holders of record April 21.

Overseas

GREAT BRITAIN.—The London & North Eastern has announced the resumption of passenger and cargo service between Harwich, England, and continent channel points including Hook of Holland, Anawerp, Rotterdam, Zeebrugge and Esbjerg.

ANGOLA.—Machinery for manufacturing railway wheels and axles is urgently needed by the Angola State Railways in Portuguese West Africa, according to the Department of Commerce's Foreign Commerce Weekly. American producers and suppliers who are in a position to furnish such equipment immediately are invited to communicate with Henrique Kopke, director, Direccao dos Servicos de Portos, Caminhos de Ferro e Transportes, Luanda, Angola, Portuguese West Africa.

GREAT BRITAIN. — The Southern (Great Britain) recently formally opened its employee training college at Gorse Hill, near Woking. Accommodations provide for 20 students, and courses are of either two or four weeks' duration. It is expected that between 250 and 400 students will attend the college per year. Students are selected on the recommendation of their departmental officers and the courses open to them include traffic control, office administration (technical departments), advanced operation, station supervision, labor relations and elementary railway work. The courses will include visits to various stations, yards, and offices on the Southern.

This one-track "wing" of the Pasing car and Diesel shop at Munich, Germany, is said to have been built to shelter the rear-end of the 25-car special train on which Adolph Hitler toured his domain and which was too long to get under the main roof of the shop. There is a similar wing at the opposite end of the track to roof the front end of the train

Construction

BALTIMORE & OHIO. — This road has awarded the following contracts, the estimated costs of which are shown in parentheses: To George Vang, Inc., Pittsburgh, Pa., for the reconstruction of bridge 66/1 at Glenwood, Pa. ($162,000), and the construction of railroad embankment and inspection pits and for driving timber piling at engine terminal facilities at Benwood, W. Va. ($65,000); to Merritt-Chapman & Scott, Cleveland, Ohio, for repairing and strengthening bulkhead and underpin building at Cleveland ($29,000); to the George F. Hazelwood Company, Cumberland, Md., for the construction of an extension to the enginehouse at M. & K. Junction, W. Va. ($30,000); to the Steiner Construction Company, Baltimore, Md., for extending the inbound freight house at Washington, D. C. ($63,000); to Lynch, Pugh & Corson, Morgantown, W. Va., for remodeling the passenger station at Morgantown ($21,000); to the Bates & Rogers Construction Corp., Chicago, for the reconstruction of bridge 63 at Cuyahoga Falls, Ohio ($55,000); to the Sutton Company, Radford, Va., for the construction of a spur track to serve the Clifford Coal Company at Muddlety, W. Va. ($26,000), and to the Consolidated Engineering Company, Baltimore, Md., for the construction of facilities for handling and storing latex, at Locust Point, Md. ($237,000).

BANGOR & AROOSTOOK. — This road has authorized the construction of an 80-ton coaling station at Oakfield, Me., at a probable cost of $81,000 and has awarded a contract to the Ross & White Company, Chicago for part of this work, at an estimated cost of $43,515.

PETALUMA & SANTA ROSA.—This road has applied to the Interstate Commerce Commission for authority to construct and operate a 1,151-ft. line in Leddy, Cal., to connect its line with an abandoned line of the Northwestern Pacific, which the Petaluma proposes to acquire and operate.

News Department continued on next left-hand page

TODAY'S SPEED

will be slow tomorrow

American business calls continuously for faster and faster deliveries. To meet this insistent demand, the railroads require motive power capable of hauling heavier trains at higher sustained speeds.

Lima-built steam locomotives of the type used on the C & O are daily proving what modern steam power can do to decrease running time and increase revenues.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED **INCORPORATED, LIMA, OHIO**

Railway Officers

EXECUTIVE

Oliver G. Swenson, whose appointment as assistant to vice-president of the Railway Express Agency at New York was reported in the *Railway Age* of April 12,

Oliver G. Swenson

began his career in express transportation in August, 1919. He later devoted much of his time to traffic work principally on the West Coast, where he was a specialist in western rate matters. Mr. Swenson was appointed assistant traffic manager at New York in November, 1935, which position he held at the time of his recent appointment as assistant to vice-president.

Frederick Lacy King, whose election as vice-president—operations of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of March 29, was born on October 13, 1889, at Wilmington. He entered railroad service on April 1, 1905, as messenger in the office of the

Frederick Lacy King

auditor of freight receipts of the Atlantic Coast Line and subsequently served in various positions including mail clerk and chief clerk in the car service department until December 13, 1917, when he was appointed chief clerk to general superintendent transportation. On March 1, 1925, Mr. King became office assistant to general superintendent transportation and five years later he was appointed special assistant in the transportation department. On October 23, 1936, he was appointed superintendent passenger transportation and on June 1, 1940, he became general superintendent transportation, which position he held until his recent election to the vice-presidency.

K. A. Borntrager, superintendent of the Mohawk and Hudson divisions of the New York Central at Albany, N. Y., has been appointed assistant to vice-president at Chicago.

Robert S. Wheeler, whose appointment as special assistant to the vice-president in charge of traffic of the Railway Express Agency at New York was reported in the *Railway Age* of April 12, has had 45 years of express experience. Mr. Wheeler went with the American Express Company in August, 1902, and was assigned to its accounting department. Four years later he was transferred to traffic work and subsequently became assistant to the traffic manager. During World War I, when the express companies were merged into a single organization, Mr. Wheeler continued in that position. On March 1, 1929, when

Robert S. Wheeler

the Railway Express Agency succeeded the former operating company, he was appointed traffic manager, and on October 1, 1936, he became general traffic manager, which position he held at the time of his recent appointment.

FINANCIAL, LEGAL AND ACCOUNTING

Roy Osburn has been appointed assistant controller of the Louisville & Nashville, at Louisville, Ky., succeeding **H. F. Thompson,** who has retired.

E. L. Monroe has been appointed auditor of revenues of the Detroit, Toledo & Ironton, with headquarters at Dearborn, Mich.

Nye F. Morehouse, whose election as vice-president and general counsel of the Chicago & North Western, with headquarters at Chicago, was reported in the *Railway Age* of April 12, was born on April 3, 1889, at Fremont, Neb., and received his law degree from the University of Nebraska in 1911. He subsequently practiced law at Fremont and Omaha, Neb., until 1917, when he entered military service during World War I, attaining the rank of major. In 1919 he joined the C. & N. W. as general attorney at Chicago, and in 1925 he was advanced to assistant general solicitor there.

Nye F. Morehouse

He was promoted to assistant general counsel in 1942, and in February, 1945, became general solicitor, the position he held at the time of his election as vice-president and general counsel.

F. H. Hitchcock, chief claim adjuster of the Atchison, Topeka & Santa Fe at Los Angeles, Cal., has been promoted to assistant general claim agent there, succeeding **F. A. Kelly,** who has retired after 39 years of service with the road.

OPERATING

Elliott E. Schlottman, whose promotion to superintendent of the Illinois Central, at Vicksburg, Miss., was reported in the *Railway Age* of March 22, was born on March 24, 1903, at Vicksburg, and attended St. Aloysius College in that city.

Elliott E. Schlottman

He entered railway service there with the I. C. in 1919 as a machinist apprentice, and subsequently advanced through positions as machinist; foreman, locomotive and car department, Natchez, Miss.; foreman, Shreveport, La.; day enginehouse

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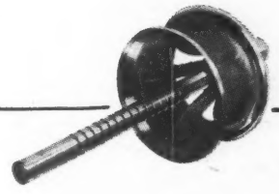
5 more

WITH THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION AND THE BOOSTER*

for the Chesapeake and Ohio



The five new locomotives ordered by the Chesapeake & Ohio Railway Company from The Baldwin Locomotive Works will be equipped with the Franklin System of Steam Distribution and the Locomotive Booster — as are the five completely modernized locomotives now entering service on this road.

In connection with the first of these rebuilt and streamlined locomotives, TRACKS, Chesapeake and Ohio Lines Magazines, has this to say:

"Principal departure from the mechanical design of the original 490 is the use of a poppet valve system, replacing piston valves. Poppet valves were installed to improve steam distribution, making for greater power and speed, smoother and faster starting, and more efficient and economical operation. The streamlined locomotive also is equipped with . . . a high speed booster to permit a swift, smooth start."

Trade Mark Reg. U. S. Pat. Off.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

foreman, McComb, Miss.; and general foreman at Asylum, Miss., and later at McComb. In 1940 he was appointed trainmaster at Hattiesburg, Miss., holding that position successively also at Jackson, Miss., and Jackson, Tenn. Mr. Schlottman was located at the latter point at the time of his new appointment.

J. F. Robbert, assistant superintendent of the Baltimore & Ohio at Washington, Ind., has been transferred to Cincinnati, Ohio, succeeding **A. P. Martindale,** who has been assigned other duties because of ill health. Mr. Robbert is succeeded by **C. A. Boyd.**

C. V. Berglund, whose promotion to general manager, Lines east, of the Northern Pacific, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of April 5, was born on April 4, 1889, at Minneapolis, Minn., and entered railway service there with the N. P. in 1909 as a stenographer in the superintendent's office. He was subsequently employed in statistical and clerical work in the road's St. Paul general office, and in 1927 was appointed trainmaster at Livingston, Mont.

C. V. Berglund

He held this position also at Staples, Minn., and Dickinson, N. D., remaining at the latter point until 1936, when he was advanced to assistant to the general manager at Seattle, Wash. He returned to St. Paul in February, 1940, as assistant to the operating vice-president, and in October of that year was promoted to assistant general superintendent of transportation. In 1944 he became general superintendent of transportation, the position he held at the time of his new appointment.

Duane M. Cohee, first assistant manager of the Pullman Company's shops at Chicago, has been promoted to manager of the shops at Atlanta, Ga., succeeding **L. F. Munson,** whose promotion to assistant mechanical superintendent at Chicago was reported in the *Railway Age* of January 25. **Nicholas G. Steinmetz** has been promoted to first assistant manager of the St. Louis (Mo.) shops.

L. W. Fisher, assistant superintendent of the Ohio Central division of the New York Central at Charleston, W. Va., has been promoted to superintendent of the Ohio Central division at Columbus, Ohio, succeeding **W. E. Kamm,** who has been transferred to the Cleveland division at Cleveland, replacing **A. Hart,** who, in turn, has been transferred to the Mohawk and Hudson divisions at Albany, N. Y. **W. G. Chase,** assistant to assistant general manager at Indianapolis, Ind., succeeds Mr. Fisher as assistant superintendent of the Ohio Central division at Charleston.

W. K. King has been appointed superintendent of car service of the New York, New Haven & Hartford at New Haven, Conn., succeeding **J. L. Barngrove, Jr.,** who has been appointed assistant to general manager, with the same headquarters. **M. L. Steucek** has been appointed superintendent of freight transportation at New Haven, succeeding **F. J. Orner,** who has been promoted to general superintendent of transportation at New Haven. **A. V. Larson** has been appointed office assistant to the general superintendent of transportation at New Haven. **R. P. Noyes** has been appointed superintendent of passenger transportation, succeeding **L. W. Nolan,** who has been appointed transportation assistant. **F. E. Moran** has been appointed assistant superintendent passenger transportation.

Raul Nevarez, whose promotion to assistant general manager of the National of Mexico, at Mexico City, Mex., was reported in the *Railway Age* of March 29, was born on April 20, 1897, and entered railway service with the Mexican Central in 1910, at Chihuahua, Mex. From that date until 1915 he served successively as clerk, stenographer, brakeman and telegraph operator. He joined the Southern Pacific of Mexico in 1915, holding positions as telegraph operator, station agent and dispatcher. From 1917 to 1927 he was a station agent with the N. of Mex. at Chihuahua, and later held positions with that road as customs agent, traveling auditor, assistant to chief of personnel department, chief clerk and chief of personnel department. He was appointed assistant to general manager on December 10, 1946, in which capacity he was serving at the time of his new appointment.

John G. Woodall, whose promotion to superintendent of terminals of the Southern, at Birmingham, Ala., was reported in the *Railway Age* of March 22, was born on September 2, 1894, at Scottsboro, Ala. He received his higher education at Alabama Polytechnic Institute, from which he was graduated in 1916 with a degree in civil engineering. Mr. Woodall subsequently entered railway service with the Southern as a rodman at Alexandria, Va., and advanced later through positions as inspector and assistant track supervisor. He also served with the Cincinnati, New Orleans & Texas Pacific (part of the Southern system) as track supervisor, supervisor of bridges and buildings, terminal trainmaster and trainmaster. In 1939 he was appointed trainmaster of the Southern at Birmingham, and shortly thereafter became superintendent of terminals at Chattanooga, Tenn. He was appointed trainmaster of the New Orleans & Northeastern (part of the Southern) at Hattiesburg, Miss., in August, 1944. In October of that year he entered military service with the Army Transportation Corps, and was released in 1946 with the rank of lieutenant colonel. He returned to the N. O. & N. E. as trainmaster, and was transferred a short time later to Birmingham. Mr. Woodall was serving in the latter capacity at the time of his new appointment.

TRAFFIC

J. E. Beatty has been appointed district passenger agent of the Northern Pacific, with headquarters at Los Angeles, Cal.

K. W. Young has been appointed division passenger agent of the Chicago, Rock Island & Pacific at Oklahoma City, Okla.

T. E. Kiefaber has been appointed manager of the division bureau of the New York Central at New York.

W. H. White has been appointed general agent, passenger department, of the New York Central at Portland, Ore., succeeding **C. H. LaFond.**

F. H. Tribbey, traveling agent of the Chicago & North Western at Des Moines, Iowa, has been appointed division freight and passeenger agent at Casper, Wyo.

P. G. Lundsrud, district passenger agent of the Atlantic Coast Line, with headquarters at Chicago, has been appointed western passenger agent there.

A. J. Schaab, chief clerk to vice-president—traffic of the Atchison, Topeka & Santa Fe at Chicago, has been appointed acting assistant general freight agent there.

T. O. Chrismer has been appointed general agent of the Wabash at Little Rock, Ark., succeeding **T. G. Smith,** who has resigned to engage in other business.

J. W. Haskell has been appointed general agent of the Union Pacific, at Fresno, Cal., and **L. M. Layne** has been appointed general agent at Oakland, Cal.

Lee M. Layne, general agent of the Union Pacific at Fresno, Cal., has been transferred to Oakland, Cal., succeeding **W. F. Day,** who has resigned. Mr. Layne is succeeded by **Jack W. Haskell,** perishable freight agent at St. Louis, Mo.

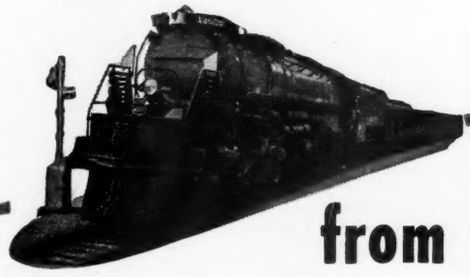
W. D. Buchanan, assistant general passenger agent of the Canadian Pacific at Vancouver, B. C., has been promoted to general passenger agent there, succeeding **George Bruce Burpee,** whose death was reported in the *Railway Age* of April 12.

C. R. Warren, assistant general freight agent of the Chesapeake & Ohio at Columbus, Ohio, has been appointed assistant industrial commissioner there. **C. L. Dozier,** northwestern passenger agent at Chicago, has been appointed general agent, passenger department, at Cincinnati, Ohio.

R. M. McBain, assistant general freight agent of the Canadian National at Winnipeg, Man., has been transferred to Vancouver, B. C., succeeding **J. R. Scott,** whose retirement was announced in the *Railway Age* of March 8. Mr. McBain is succeeded by **G. N. McMillan,** assistant general freight agent—rates, at Winnipeg,

News Department continued on next left-hand page

Get every pound of POWER



from those hot gases

● The installation of Security Circulators in a locomotive boiler provides a large additional heating area in the path of the hot gases.

This enables the locomotive to get up steam more speedily; increases the rapidity of water circulation from the side legs over the crown sheet; and aids in maintaining maximum boiler output

Circulator-equipped locomotives are now in operation on forty-six different railroads.

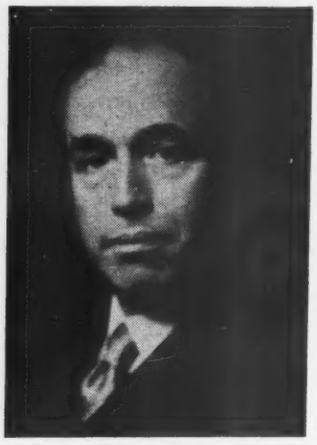
AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

who in turn is succeeded by **L. H. Roberts,** chief of tariff bureau there. Mr. Roberts is succeeded by **George R. Fazackerley.**

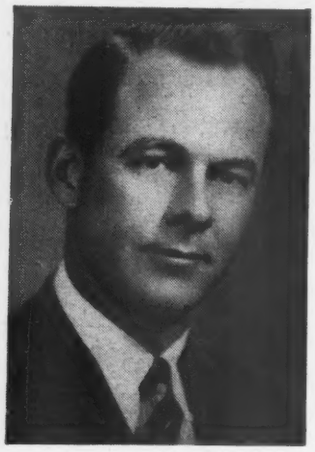
C. F. Messenkopf, whose appointment as general traffic manager of the Railway Express Agency at New York was reported in the *Railway Age* of April 12, has been with the agency for 45 years. Starting his career in the traffic department in 1902, he advanced through various positions until January, 1929, when he was appointed



C. F. Messenkopf

assistant traffic manager. Mr. Messenkopf was appointed traffic manager in October, 1936, which position he held at the time of his recent promotion to general traffic manager.

John C. Ostrom, special representative of the Chesapeake & Ohio at Richmond, Va., has been promoted to assistant passenger traffic manager, with the same headquarters. Mr. Ostrom, who is 35 years of age, was graduated from Yale University in 1934 and in the six years following his graduation was passenger manager for the Holland-America Line in New York. In this capacity he traveled extensively in Europe, principally in England, Holland and France. In 1940 he became secretary



John C. Ostrom

of the New York Board of Trade and held that position until he entered the service of the U. S. Navy in 1943, holding the rank of lieutenant and serving as commanding officer of a fleet minesweeper. On January 1, 1947, Mr. Ostrom was appointed special representative of the Chesapeake & Ohio at Richmond.

J. R. Rohrer, whose appointment as assistant traffic manager of the Railway Express Agency at New York was re-

J. R. Rohrer

ported in the *Railway Age* of April 12, has been in the express business for over 36 years. Mr. Rohrer, whose service has been principally in the Southwestern states, was general agent at Denver, Colo., at the time of his recent appointment as assistant traffic manager at New York.

C. B. Williams, whose appointment as traffic manager of the Railway Express Agency at New York was reported in the *Railway Age* of April 12, was born at Charlotte, N. C., in June, 1885. Mr. Williams began working for the agency's predecessor at Charlotte at the age of 14

C. B. Williams

years. He held various positions in the claims and traffic departments at Richmond, Va., and Atlanta, Ga., before going to the agency's headquarters at New York, as assistant to vice-president, which position he held until his recent appointment as traffic manager.

Philip F. Horton, whose promotion to assistant to freight traffic manager—service, of the Chesapeake & Ohio and Pere Marquette, with headquarters at Cincinnati, Ohio, was reported in the *Railway Age* of April 5, was born on January 9, 1896, at Latonia, Ky. He entered railway service in 1912 with the Louisville & Nashville as a clerk at Covington, Ky., and later served as clerk-stenographer and chief clerk in the office of the commercial agent of the Grand Trunk Western, at both Toledo, Ohio, and Cincinnati. At the latter point he was also employed successively by the Southern and the New York Central as secretary to assistant general freight agent. He joined the C. & O. in 1923 as secretary to general western freight agent, and subsequently advanced to secretary to assistant general freight agent. On October 16, 1930, he was promoted to freight service representative, which position he held at the time of his new appointment.

Russell W. Ohlman, whose promotion to general passenger agent of the Pere Marquette at Detroit, Mich., was reported in the *Railway Age* of April 5, was born on July 10, 1903, at Grand Rapids, Mich., and entered railway service in 1922 with the Pennsylvania. He joined the P. M. in 1930 as a clerk in the division freight office at Grand Rapids, and was appointed passenger representative there in 1934. In 1939 Mr. Ohlman was promoted to city passenger agent at Chicago, and the following year he was advanced to traveling passenger agent. He became division passenger agent at

Russell W. Ohlman

Grand Rapids in 1941, and assistant general passenger agent at Detroit on January 15, 1947. He was serving in the latter capacity at the time of his new appointment.

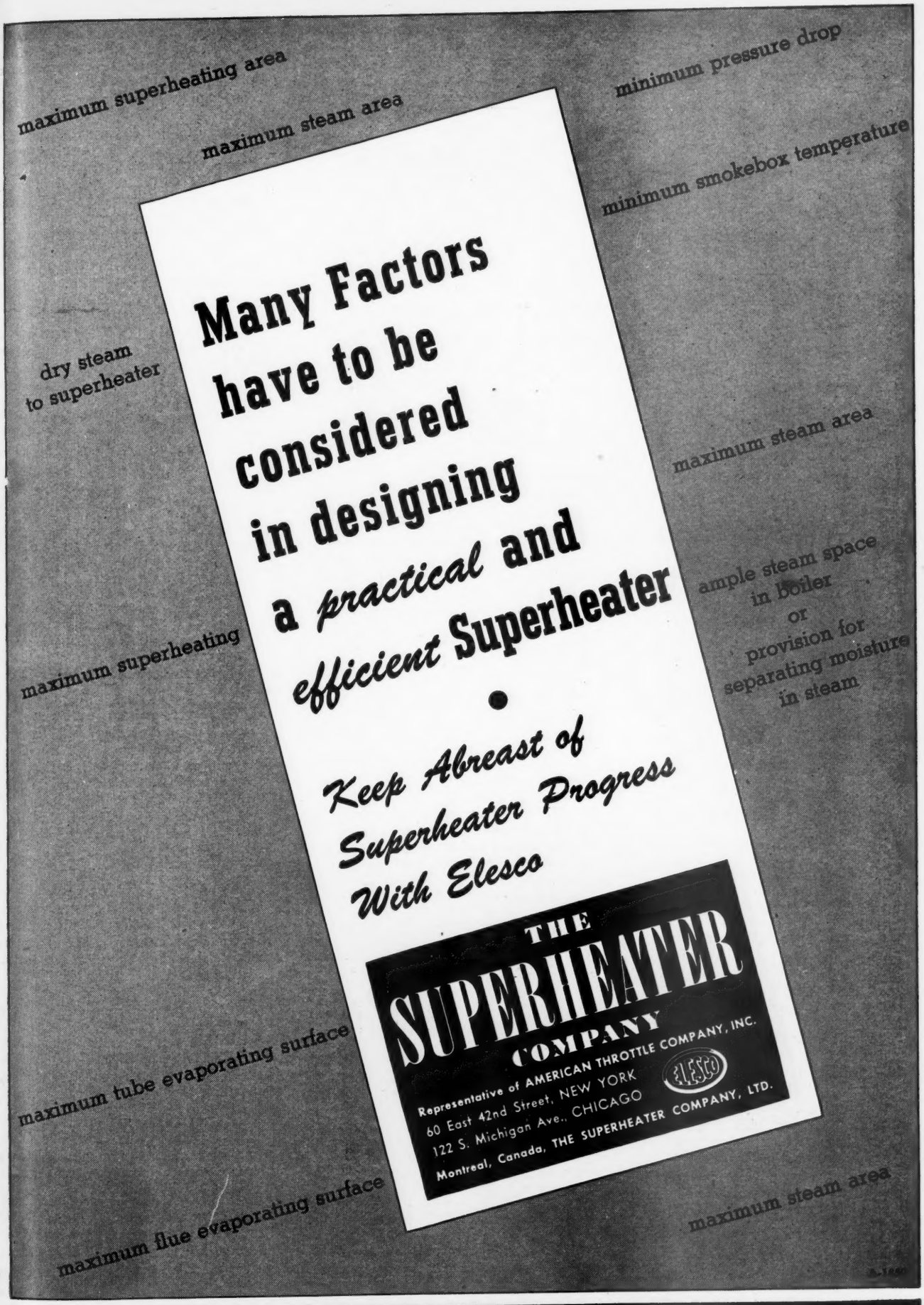
ENGINEERING & SIGNALING

A. J. Hegele, acting special engineer of the Wheeling & Lake Erie and the Lorain & West Virginia, has been appointed special engineer, with headquarters as before at Cleveland, Ohio.

J. W. McReynolds, assistant division engineer of the Chicago, Milwaukee, St. Paul & Pacific at La Crosse, Wis., has been appointed division engineer of the Kansas City division, with headquarters at Ottumwa, Iowa.

A. W. Duke, division engineer on the Fort Wayne division of the Pennsylvania, at Fort Wayne, Ind., has been appointed assistant to engineer, maintenance of way, on the Southwestern division, with headquarters at Indianapolis, Ind. **C. E. Gipe,**

News Department continued on next left-hand page


maximum superheating area
maximum steam area
minimum pressure drop
minimum smokebox temperature
dry steam to superheater
maximum steam area
maximum superheating
ample steam space in boiler or provision for separating moisture in steam
maximum tube evaporating surface
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division engineer on the Renovo division, at Erie, Pa., succeeds Mr. Duke as division engineer at Fort Wayne. **W. H. Kendall,** assistant division engineer on the Middle division, at Altoona, Pa., has been promoted to division engineer on the Renovo division, succeeding Mr. Gipe. **G. M. Smith,** supervisor of track on the Pittsburgh division, at Johnstown, Pa., has been promoted to assistant division engineer on the Middle division, with headquarters at Altoona, Pa., succeeding Mr. Kendall. **J. W. Buford,** supervisor of track on the Long Island, at Jamaica, N. Y., has been promoted to assistant division engineer in the office of the chief engineer, with headquarters at Philadelphia, Pa.

W. H. Rochester, whose appointment as chief engineer of the Gulf, Colorado & Santa Fe (part of the Atchison, Topeka & Santa Fe), with headquarters at Galveston, Tex., was reported in the *Railway Age* of April 5, was born at Pendleton, S. C., on February 1, 1891, and received his higher education at Porter Military Academy, Charleston, S. C., and Clemson College. He entered railroad service in 1915 as a draftsman on the Nashville, Chatta-

W. H. Rochester

nooga & St. Louis, at Nashville, Tenn., and in October of the same year he became a chainman on the Santa Fe at Arkansas City, Kan. He subsequently served as rodman, transitman, computer, and topographer on construction and location at various points on the Santa Fe until April, 1926, when he was promoted to assistant engineer in charge of construction, with headquarters at Chicago. In May, 1930, he was appointed construction engineer, and served in that capcity until August, 1937, when he was promoted to district engineer, with headquarters at Amarillo, Tex. In June, 1943, Mr. Rochester was appointed assistant chief engineer of the Coast lines, with headquarters at Los Angeles, Cal., and in October, 1946, he was advanced to acting chief engineer of the road's Gulf lines, the position he held at the time of his recent appointment.

James Smallwood Webb, whose appointment as chief engineer communication and signaling of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of April 5, was born at Baltimore, Md., on July 22, 1893, and attended Baltimore Polytechnic Institute. He began his career with the Washington Terminal Company in July, 1912, on signal construction work and the following September he went with the Baltimore & Ohio on signal maintenance, becoming signal draftsman in May, 1913. Mr. Webb was engineer

James Smallwood Webb

draftsman for the United Railways at Baltimore from January, 1914, to April, 1916, when he returned to the B. & O. as signal draftsman. In September, 1917, he went with the Western Maryland in a similar capacity, becoming chief draftsman one year later. He was appointed inspector of telegraph and signals for the Western Maryland in December, 1920, and became signal and telephone engineer in February, 1940. Mr. Webb went with the Atlantic Coast Line in March, 1942, as assistant superintendent signals, becoming signal engineer five months later. He was appointed signal and telephone engineer in April, 1946, which position he held until his recent promotion to chief engineer communication and signaling.

W. W. Wilson, whose retirement as chief engineer of the Gulf, Colorado & Santa Fe (part of the Atchison, Topeka & Santa Fe), with headquarters at Galveston, Tex., was reported in the *Railway Age* of April 5, was born at Hearne, Tex., on Jan-

W. W. Wilson

uary 2, 1882, and was graduated by the University of Texas in 1906 with the degree of C. E. Prior to entering the university in 1902, he entered the service of the G. C. & S. F. and served as a track laborer and as an axman in the engineering department. In June, 1906, he returned to the G. C. & S. F. as a transitman on construction and maintenance, and in April, 1909, he was promoted to assistant engineer on the Beaumont division. In January, 1910, Mr. Wilson was appointed division engineer of the Galveston division, with headquarters at Galveston; and from November, 1918, until April, 1920, during the period of federal control of the railways, he served as engineer maintenance of way of the Galveston Terminal Association. He returned to the G. C. & S. F. on April 20, as a division engineer, at Galveston, and was later transferred to the Southern division, with headquarters at Temple, Tex. On August 15, 1930, he was promoted to district engineer, at Galveston. In the latter part of 1939, the position of district engineer at Galveston was abolished and Mr. Wilson was appointed division engineer with the same headquarters. In April, 1941, he was appointed acting chief engineer, and in June, 1941, he was advanced to chief engineer of the G. C. & S. F. at Galveston, the position he held at the time of his retirement.

MECHANICAL

R. M. Tonning, assistant electrical foreman of the Beech Grove shops of the New York Central, has been appointed electrical engineer of the Atlantic Coast Line.

M. H. Kline has been appointed master mechanic of the Cambria & Indiana, with headquarters at Colver, Pa., succeeding **J. L. Harvey,** who has retired, at his own request, because of ill health, after 10 years of service.

S. B. Dyer, assistant engineer of tests of the Boston & Maine and the Maine Central, has been promoted to engineer of tests, with headquarters at Billerica, Mass., succeeding **C. B. Smith,** who retired on April 1, after 52 years of continuous service with those roads. **K. F. McCall** has been appointed assistant engineer of tests.

SPECIAL

G. C. Stromsoe, assistant superintendent in charge of safety of the Denver & Rio Grande Western, has been appointed superintendent of safety of the Atlantic Coast Line at Wilmington, N. C.

OBITUARY

L. B. Martin, superintendent of electric lines, Illinois Terminal, at Springfield, Ill., died in that city on April 12, following a short illness.

I. Newton Phillips, assistant general northern agent of the Nashville, Chattanooga & St. Louis, with headquarters at Chicago, died in that city on April 14.

Noel W. Smith, who retired in December, 1939, as assistant chief engineer of the Pennsylvania system at Philadelphia, Pa., died on April 11, at the age of 77 years.

Hans O. Halsted, who retired in 1940 as superintendent of transportation of the Pere Marquette at Detroit, Mich., died at his home in Hartford, Conn., on April 13. He was 94 years old.

A table of Freight Operating Statistics appears on the second left-hand page.

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS LA GRANGE, ILL.

Freight Operating Statistics of Large Steam Railways—Selected

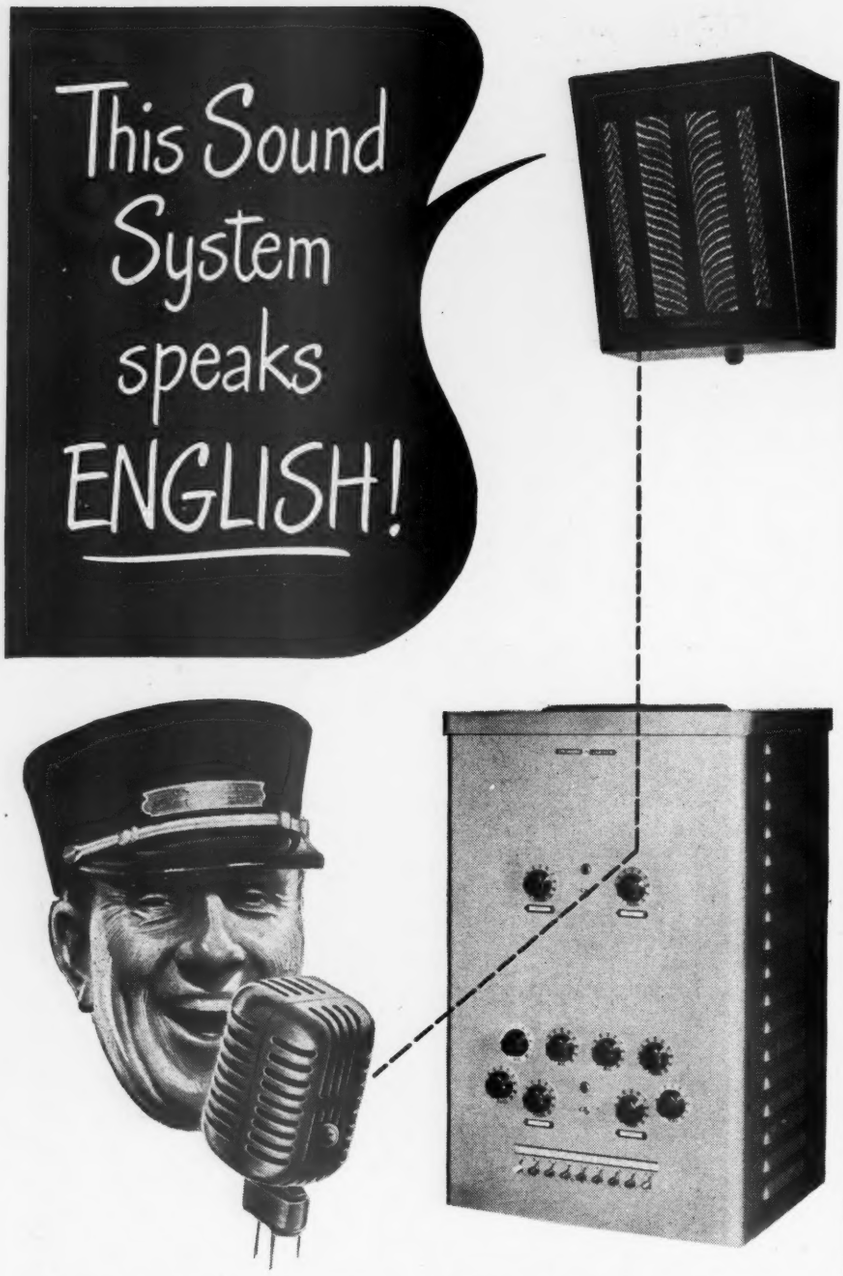
Region, road and year	Miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (*thousands*)	Car-miles: Per cent loaded	Ton-miles (*thousands*): Gross excl. locos. & tenders	Ton-miles (*thousands*): Net-rev. and non-rev.	Road locos. on line: Serviceable: Unstored	Road locos. on line: Serviceable: Stored	Road locos. on line: B. O.	Road locos. on line: Per cent B. O.
New England Region:												
Boston & Albany	1947	362	151,879	169,201	25,721	3,533	65.8	216,616	86,595	63	..	26	29.2
	1946	362	158,687	174,630	22,588	3,519	67.6	213,937	88,312	69	..	17	19.8
Boston & Maine	1947	1,750	334,181	346,868	14,699	12,172	71.4	748,614	328,660	111	20	14	9.7
	1946	1,752	337,617	355,840	17,164	12,666	72.1	775,852	344,914	112	1	15	11.7
N. Y., New H. & Hartf*	1947	1,815	403,151	546,004	49,170	14,955	70.7	877,700	380,269	191	7	45	20.2
	1946	1,815	406,247	578,937	46,752	15,029	71.9	870,578	378,388	212	30	42	19.6
Great Lakes Region:													
Delaware & Hudson	1947	794	305,349	366,691	37,149	12,912	69,2	918,808	497,198	127	32	35	18.0
	1946	846	298,609	359,997	36,475	12,322	65.6	899,568	473,791	127	64	33	14.7
Del., Lack. & Western	1947	971	337,836	381,204	44,273	13,899	69.5	909,353	413,658	109	16	51	29.0
	1946	971	318,059	357,538	42,693	13,052	70.1	852,460	399,323	121	31	21	12.1
Erie	1947	2,229	767,484	815,320	64,078	36,851	67.6	2,389,546	1,034,988	266	35	85	22.0
	1946	2,242	799,890	852,485	68,821	36,055	64.0	2,395,605	1,001,751	288	29	68	17.7
Grand Trunk Western	1947	972	274,580	285,471	2,352	8,895	70.4	554,516	244,513	69	..	9	11.5
	1946	1,026	247,205	256,650	2,093	7,252	70.0	449,969	199,798	66	..	9	12.0
Lehigh Valley	1947	1,242	323,130	356,468	57,218	14,223	69.4	955,543	463,100	114	14	41	24.3
	1946	1,242	315,430	342,310	50,557	13,061	67.9	898,356	443,115	119	32	18	10.7
New York Central	1947	10,338	3,364,841	3,607,632	247,410	124,715	63.6	8,683,385	4,063,733	1,062	15	331	23.5
	1946	10,328	3,440,957	3,696,909	248,941	116,793	61.8	8,228,517	3,775,325	1,079	13	305	21.8
New York, Chi. & St. L.	1947	1,656	668,004	671,860	9,277	25,937	68.7	1,675,233	747,466	143	1	17	10.6
	1946	1,656	607,320	616,882	8,340	22,840	70.4	1,428,656	638,601	154	10	27	14.1
Pere Marquette	1947	1,913	422,318	432,944	9,434	13,296	64.9	914,336	419,313	134	2	23	14.5
	1946	1,915	355,663	368,968	8,892	11,218	68.1	757,184	358,890	126	12	25	14.3
Pitts. & Lake Erie	1947	223	103,868	105,445	44	4,127	63.9	343,307	196,737	30	..	15	33.3
	1946	229	98,937	100,297	97	3,696	57.2	332,074	185,349	39	2	14	25.5
Wabash	1947	2,381	649,239	668,448	16,299	23,410	73.3	1,472,315	678,332	155	8	43	20.9
	1946	2,381	655,841	679,501	17,526	22,067	71.9	1,393,583	636,085	162	14	34	16.2
Central Eastern Region:													
Baltimore & Ohio	1947	6,103	2,097,402	2,608,820	293,183	69,806	64.2	5,062,725	2,499,182	846	2	312	26.9
	1946	6,103	2,152,433	2,664,605	279,961	68,901	62.1	5,027,948	2,440,494	899	33	229	19.7
Central of New Jersey*	1947	419	88,562	98,825	16,165	3,127	66.5	224,945	116,306	45	3	30	38.5
	1946	649	177,512	207,787	44,501	6,231	65.6	458,605	239,129	94	2	45	31.9
Central of Pennsylvania	1947	213	85,623	102,696	22,740	3,140	68.1	227,287	123,239	50	1	23	31.1
	1946												
Chicago & Eastern Ill.	1947	910	191,609	193,519	3,674	5,470	71.2	365,309	186,583	60	..	16	21.1
	1946	910	194,441	196,767	4,006	5,152	70.3	346,026	172,380	56	1	21	26.9
Elgin, Joliet & Eastern	1947	391	130,805	136,873	3,840	3,845	64.2	300,428	164,699	57	..	6	9.5
	1946	392	117,392	125,469	3,779	3,376	65.5	258,094	133,858	66	..	12	15.4
Long Island	1947	372	34,931	36,576	17,367	377	55.0	27,084	11,469	37	..	2	5.1
	1946	372	33,871	35,613	16,959	390	55.7	27,736	11,677	48	..	5	9.4
Pennsylvania System	1947	10,031	4,183,478	4,733,521	671,898	152,771	65.0	10,875,514	5,274,398	1,946	29	268	11.9
	1946	10,033	4,098,823	4,779,803	649,322	146,202	62.7	10,347,781	4,882,429	1,904	27	255	11.7
Reading	1947	1,357	529,100	589,978	69,856	17,520	64.1	1,365,860	746,123	244	18	51	16.3
	1946	1,361	539,416	596,119	67,426	17,383	62.9	1,345,404	720,887	256	..	63	19.7
Pocahontas Region:													
Chesapeake & Ohio	1947	3,067	1,295,465	1,415,328	78,839	59,863	57.5	5,191,300	3,015,546	482	1	50	9.4
	1946	3,045	1,115,614	1,227,443	60,287	49,383	57.4	4,248,543	2,462,135	459	9	60	11.4
Norfolk & Western	1947	2,108	834,084	904,342	69,231	38,993	60.0	3,352,513	1,865,001	268	26	18	5.8
	1946	2,139	764,075	825,012	72,140	34,986	58.8	3,043,353	1,666,416	254	53	23	7.0
Southern Region:													
Atlantic Coast Line	1947	5,556	1,170,993	1,188,433	17,189	30,138	65.1	2,013,006	911,261	379	18	44	10.0
	1946	5,552	1,148,251	1,168,910	15,772	28,001	63.6	1,852,273	805,614	391	6	25	5.9
Central of Georgia*	1947	1,782	299,568	304,585	6,331	7,464	72.2	496,857	233,429	97	..	9	8.5
	1946	1,783	304,416	309,936	5,883	7,361	73.8	457,126	214,444	95	..	7	6.9
Gulf, Mobile & Ohio	1947	1,931	272,219	318,571	2,775	11,224	73.8	723,051	345,119	119	7	7	5.3
	1946	1,931	325,106	399,462	3,764	10,435	73.9	671,186	324,552	106	4	10	8.3
Illinois Central	1947	6,582	1,573,152	1,590,502	57,207	56,661	65.2	3,907,750	1,855,111	591	1	88	12.9
	1946	6,605	1,487,584	1,503,788	54,468	50,644	64.4	3,551,088	1,690,171	616	27	73	10.2
Louisville & Nashville	1947	4,759	1,579,195	1,727,471	48,860	40,404	64.3	2,917,542	1,517,527	386	12	88	18.1
	1946	4,749	1,494,218	1,627,124	45,013	37,261	64.1	2,647,437	1,351,432	390	15	78	16.1
Seaboard Air Lines	1947	4,145	959,227	1,022,049	15,816	27,537	68.9	1,829,221	824,703	291	..	53	15.4
	1946	4,139	905,703	952,287	13,562	25,213	68.2	1,628,112	702,682	273	..	57	17.3
Southern	1947	6,451	2,081,990	2,117,076	36,810	49,577	71.4	3,116,595	1,431,026	571	..	110	16.2
	1946	6,450	1,983,961	2,017,577	33,463	45,191	70.5	2,808,085	1,281,700	580	14	117	16.5
Northwestern Region:													
Chi. & North Western	1947	8,061	1,040,777	1,079,815	28,337	31,818	67.4	2,146,834	954,540	366	6	141	27.5
	1946	8,062	1,071,296	1,111,305	27,896	31,452	68.3	2,101,010	990,738	379	8	121	23.8
Chicago Great Western	1947	1,445	279,962	281,556	18,068	8,382	71.6	545,479	250,683	63	..	12	16.0
	1946	1,445	293,537	298,335	11,487	8,718	69.0	579,252	255,473	71	..	10	12.3
Chi., Milw., St. P. & Pac.	1947	10,725	1,499,467	1,594,185	65,979	47,105	66.6	3,202,159	1,501,322	480	31	89	14.8
	1946	10,725	1,438,119	1,537,986	94,408	46,599	68.2	3,104,814	1,471,974	505	18	85	14.0
Chi., St. P., Minneap. & Om.	1947	1,606	236,761	253,107	16,106	5,956	69.9	408,731	191,458	74	..	38	33.9
	1946	1,606	234,539	253,400	16,600	5,826	65.4	411,344	186,821	89	..	29	24.6
Duluth, Missabe & Iron Range	1947	547	29,957	30,225	386	502	59.1	34,299	16,178	21	19	16	28.6
	1946	546	30,503	30,609	769	493	59.3	32,423	14,687	25	19	16	26.7
Great Northern	1947	8,236	1,152,291	1,155,659	48,651	38,444	67.7	2,634,407	1,216,706	364	38	98	19.6
	1946	8,236	1,084,609	1,083,869	41,111	34,145	64.9	2,367,455	1,052,453	337	39	66	14.9
Minneap., St. P. & S. St. M.	1947	4,181	462,268	476,090	10,155	12,197	68.9	802,403	383,420	119	..	26	17.9
	1946	4,181	472,866	485,380	10,590	12,151	66.5	811,749	376,174	127	1	9	6.6
Northern Pacific	1947	6,625	966,511	1,027,488	65,003	34,287	67.2	2,365,343	1,066,330	367	8	61	14.0
	1946	6,576	860,803	917,931	64,568	29,784	72.6	2,015,288	1,009,895	379	7	58	13.1
Central Western Region:													
Alton*	1947	915	168,701	168,902	698	5,413	69.2	356,394	170,363	78	2		
	1946	915	237,569	240,731	421	5,532	70.1	366,326	173,072	82	3	10	10.5
Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F.)	1947	13,107	2,832,748	2,982,216	149,283	98,285	67.1	6,460,370	2,632,566	718	121	128	13.2
	1946	13,085	2,685,373	2,853,871	156,054	92,588	67.9	6,085,319	2,525,167	802	28	171	17.1
Chi. Burl. & Quincy	1947	8,671	1,410,536	1,463,088	61,354	52,373	63.7	3,715,875	1,711,810	456	19	79	14.3
	1946	8,666	1,420,199	1,484,875	46,256	49,893	63.9	3,486,927	1,609,322	482	..	66	12.0
Chi. Rock I. & Pac.*	1947	7,619	1,306,742	1,336,854	21,739	41,042	66.2	2,713,980	1,196,916	320	4	84	20.6
	1946	7,619	1,313,136	1,357,487	25,931	38,482	65.4	2,533,542	1,100,086	359		100	21.8
Denver & R. G. Wn.*	1947	2,366	359,900	402,983	53,788	10,948	73.3	747,114	381,659	141	36	32	15.3
	1946	2,386	343,169	377,576	54,432	10,113	75.5	650,544	321,068	122	9	42	24.3
Southern Pacific Company	1947	8,159	2,149,425	2,407,705	424,046	85,077	70.7	5,500,916	2,380,004	726	8	225	23.5
	1946	8,173	1,908,057	2,154,527	370,830	77,142	72.2	4,878,171	2,102,096	747		167	18.3
Union Pacific	1947	9,775	2,566,678	2,705,850	218,531	88,272	66.1	6,311,086	2,822,456	691	76	122	13.7
	1946	9,777	2,478,577	2,576,194	178,744	85,653	67.1	5,672,380	2,415,569	665	143	110	12.0
Southwestern Region:													
Mo.-Kans.-Texas Lines	1947	3,241	525,011	538,493	9,296	14,139	66.0	930,347	411,909	116	..	52	31.0
	1946	3,241	530,069	542,073	10,780	13,663	70.6	857,951	387,684	114	24	29	17.4
Missouri Pacific*	1947	7,011	1,561,689	1,623,965	43,586	49,907	66.6	3,389,055	1,536,689	423	5	62	12.7
	1946	7,054	1,432,410	1,506,191	40,358	46,915	64.5	3,188,475	1,392,478	419		83	16.5
Texas & Pacific	1947	1,871	391,480	391,480	6,983	12,596	64.7	849,836	339,910	102	37	15	9.7
	1946	1,871	351,401	351,401	5,639	11,127	67.9	716,320	286,933	113	41	11	6.7
St. Louis-San Francisco	1947	4,615	972,249	1,011,765	11,813	23,091	69.2	1,534,324	704,582	292	15	26	7.8
	1946	4,615	1,002,599	1,062,193	14,194	22,703	67.1	1,506,947	687,294	315	..	32	9.2
St. Louis-San Fran. & Texas	1947	156	35,529	37,170	104	648	66.3	44,718	18,235	11	..	1	8.3
	1946	156	33,987	34,829	4	606	67.6	38,822	15,959	9	..		
St. Louis Southw. Lines*	1947	1,568	352,373	355,259	4,697	14,311	78.9	831,684	371,774	83	8	21	18.8
	1946	1,575	335,648	338,184	4,570	12,740	79.2	717,345	320,663	88	23	28	20.1
Texas & New Orleans	1947	4,318	988,918	989,558	26,119	26,572	75.9	1,655,064	751,468	210	..	33	13.6
	1946	4,321	878,321	880,781	15,888	24,400	75.2	1,523,360	681,168	217	7	45	16.7

Items for the Month of January 1947 Compared with January 1946

Region, road and year		Freight cars on line: Home	Foreign	Total	Per Cent B. O.	G.t.m. per train-hr. excl.locos. and tenders	G.t.m. per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Coal lb. per 1000 g.t.m. inc. loco.	Mi. per loco. per day
New England Region:														
Boston & Albany	1947	298	6,957	7,255	0.3	19,911	1,433	573	24.5	412	25.6	7,717	207	79.9
	1946	396	5,207	5,603	0.3	20,232	1,355	559	25.1	472	27.8	7,870	210	83.2
Boston & Maine	1947	1,469	11,575	13,044	2.0	32,676	2,246	986	27.0	790	40.9	6,058	115	86.7
	1946	1,782	13,219	15,001	2.1	32,688	2,305	1,025	27.2	753	38.4	6,351	115	96.1
N. Y., New H. & Hartf*	1947	1,286	19,996	21,282	1.6	30,064	2,184	946	25.4	569	31.6	6,759	101	84.9
	1946	2,249	19,103	21,352	3.8	27,062	2,150	935	25.2	538	29.7	6,725	101	78.0
Great Lakes Region:														
Delaware & Hudson	1947	2,042	8,354	10,396	2.8	50,401	3,025	1,637	38.5	1,613	60.5	20,200	122	69.3
	1946	2,773	6,089	8,862	4.1	50,668	3,029	1,595	38.5	1,671	66.3	18,066	120	59.6
Del., Lack. & Western	1947	4,076	14,015	18,091	3.3	42,884	2,724	1,239	29.8	741	35.9	13,742	122	87.1
	1946	4,763	12,026	16,789	4.6	39,257	2,713	1,271	30.6	758	35.3	13,266	126	81.9
Erie	1947	5,388	26,682	32,070	2.5	51,435	3,138	1,359	28.1	1,016	53.5	14,978	108	80.3
	1946	9,485	25,027	34,512	3.8	48,377	3,018	1,262	27.8	928	52.2	14,413	113	82.6
Grand Trunk Western	1947	3,197	11,120	14,317	5.0	38,615	2,032	896	27.5	544	28.1	8,115	101	130.9
	1946	3,412	7,512	10,924	4.7	36,687	1,826	811	27.6	611	31.7	6,282	102	121.4
Lehigh Valley	1947	4,140	16,608	20,748	3.5	50,318	3,042	1,474	32.6	771	34.1	12,028	118	83.0
	1946	7,027	15,225	22,252	3.9	48,317	2,950	1,455	33.9	657	28.5	11,509	112	79.5
New York Central	1947	43,048	124,617	167,665	2.9	36,758	2,617	1,225	32.6	805	38.9	12,680	120	99.6
	1946	53,790	102,083	155,873	3.9	35,902	2,434	1,117	32.3	760	38.0	11,792	127	101.5
New York, Chi. & St. L.	1947	1,721	15,596	17,317	1.5	46,217	2,522	1,125	28.8	1,438	72.6	14,560	98	144.8
	1946	3,005	12,642	15,647	4.1	43,994	2,366	1,057	28.0	1,358	69.0	12,440	104	112.9
Pere Marquette	1947	2,800	14,187	16,987	2.8	35,700	2,181	1,000	31.5	769	37.6	7,071	112	96.0
	1946	4,239	10,425	14,664	5.6	38,034	2,145	1,017	32.0	851	39.0	6,045	105	81.8
Pitts. & Lake Erie	1947	2,629	7,696	10,325	4.8	48,911	3,317	1,901	47.7	520	17.1	28,459	108	76.8
	1946	3,699	9,514	13,213	4.1	47,877	3,363	1,877	50.1	470	16.4	26,109	112	65.7
Wabash	1947	4,944	15,031	19,975	1.8	43,430	2,295	1,057	29.0	1,072	50.4	9,190	120	113.5
	1946	6,046	14,131	20,177	4.5	40,451	2,150	982	28.8	1,000	48.2	8,618	130	112.0
Central Eastern Region:														
Baltimore & Ohio	1947	32,815	51,267	84,082	4.8	30,520	2,468	1,218	35.8	973	42.3	13,210	163	83.4
	1946	38,778	50,550	89,328	4.8	28,708	2,393	1,161	35.4	938	42.6	12,899	172	84.2
Central of New Jersey*	1947	485	9,576	10,061	2.5	32,978	2,612	1,350	37.2	367	14.8	8,954	151	68.9
	1946	5,140	13,780	18,920	6.6	31,018	2,678	1,396	38.4	415	16.5	11,886	133	71.0
Central of Pennsylvania	1947	1,211	3,703	4,914	6.0	34,989	2,768	1,501	39.2	813	30.4	18,664	140	63.7
	1946	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicago & Eastern Ill.	1947	1,529	4,059	5,588	4.5	32,455	1,926	984	34.1	1,044	43.0	6,614	132	89.8
	1946	2,277	3,818	6,095	4.8	31,340	1,807	900	33.5	940	40.0	6,111	137	87.3
Elgin, Joliet & Eastern	1947	6,441	17,077	23,518	1.0	13,416	2,458	1,347	42.8	237	8.6	13,588	163	127.7
	1946	6,942	7,244	14,186	1.0	14,434	2,348	1,218	39.6	299	11.5	11,015	170	87.3
Long Island	1947	59	3,671	3,730	.8	5,639	794	336	30.4	86	5.1	995	459	60.6
	1946	37	5,564	5,601	.6	6,298	832	350	29.9	67	4.0	1,013	367	47.1
Pennsylvania System	1947	116,031	127,923	243,954	9.5	35,072	2,699	1,309	34.5	695	30.9	16,962	139	84.5
	1946	129,034	119,945	248,979	6.0	34,531	2,603	1,228	33.4	640	30.6	15,698	140	86.5
Reading	1947	9,649	25,566	35,215	2.7	34,990	2,587	1,413	42.6	683	25.0	17,737	115	77.3
	1946	12,062	26,859	38,921	2.2	29,754	2,501	1,340	41.5	601	23.0	17,086	128	77.7
Pocahontas Region:														
Chesapeake & Ohio	1947	32,068	15,879	47,947	1.4	57,666	4,099	2,381	50.4	1,923	66.4	31,717	85	98.5
	1946	33,715	15,633	49,348	1.8	53,721	3,885	2,251	49.9	1,595	55.7	26,083	88	86.1
Norfolk & Western	1947	24,696	8,536	33,232	.9	61,727	4,083	2,271	47.8	1,713	59.7	28,540	98	107.1
	1946	27,742	7,337	35,079	1.2	62,086	4,044	2,214	47.6	1,512	54.0	25,131	96	95.0
Southern Region:														
Atlantic Coast Line	1947	7,796	25,213	33,009	3.0	27,168	1,727	782	30.2	890	45.2	5,291	124	94.4
	1946	9,523	23,150	32,673	1.6	28,675	1,622	706	28.8	822	44.9	4,681	125	95.4
Central of Georgia*	1947	1,249	6,809	8,058	1.7	30,644	1,665	782	31.3	892	39.5	4,226	136	102.7
	1946	1,726	6,870	8,596	1.4	28,159	1,505	706	29.1	888	41.3	3,880	151	105.6
Gulf, Mobile & Ohio	1947	1,479	6,592	8,071	1.1	46,694	2,664	1,271	30.7	1,354	59.6	5,765	78	86.1
	1946	1,931	6,647	8,578	1.1	36,962	2,068	1,000	31.1	1,203	52.4	5,422	127	117.6
Illinois Central	1947	14,978	35,430	50,408	1.0	41,916	2,543	1,207	32.7	1,234	57.8	9,092	139	83.1
	1946	14,488	37,322	51,810	1.1	38,744	2,447	1,165	33.4	992	46.1	8,255	147	75.3
Louisville & Nashville	1947	23,588	19,076	42,664	3.1	27,052	1,847	961	37.6	1,142	47.2	10,286	140	122.8
	1946	25,885	15,746	41,631	4.3	27,333	1,772	904	36.3	1,012	43.5	9,180	143	118.9
Seaboard Air Lines	1947	5,036	21,678	26,714	1.5	31,457	1,966	886	29.9	1,017	49.3	6,418	125	110.4
	1946	6,106	19,533	25,639	1.9	31,654	1,841	794	27.9	875	46.0	5,476	133	103.9
Southern	1947	12,634	36,166	48,800	3.8	25,389	1,517	697	28.9	972	47.1	7,156	145	104.9
	1946	16,408	34,324	50,732	4.6	24,046	1,436	655	28.4	816	40.8	6,410	156	97.0
Northwestern Region:														
Chi. & North Western	1947	16,102	37,335	53,437	4.3	30,198	2,156	959	30.0	570	28.2	3,820	150	76.7
	1946	21,048	36,600	57,648	4.6	29,676	2,040	962	31.5	557	25.9	3,964	157	79.0
Chicago Great Western	1947	877	5,508	6,385	2.2	32,079	1,952	897	29.9	1,303	60.9	5,596	146	133.1
	1946	1,086	6,523	7,609	3.4	30,335	1,986	876	29.3	1,117	55.2	5,703	151	134.6
Chi., Milw., St. P. & Pac.	1947	18,193	45,431	63,624	1.6	33,040	2,155	1,011	31.9	794	37.4	4,516	134	96.0
	1946	21,290	43,894	65,184	1.9	31,269	2,184	1,035	31.6	736	34.2	4,427	137	94.1
Chi., St. P., Minneap. & Om.	1947	692	7,961	8,653	5.0	22,752	1,775	832	32.1	735	32.7	3,846	133	81.4
	1946	831	8,847	9,678	7.9	21,646	1,794	815	32.1	649	30.9	3,752	132	78.9
Duluth, Missabe & Iron Range	1947	14,834	572	15,406	2.4	16,348	1,203	568	32.2	34	1.8	954	198	22.6
	1946	14,838	609	15,447	3.5	14,308	1,126	510	29.8	31	1.7	868	206	20.3
Great Northern	1947	17,099	21,503	38,602	2.1	36,113	2,310	1,067	31.6	984	45.9	4,765	123	82.7
	1946	20,175	17,849	38,024	2.7	32,948	2,203	979	30.8	918	45.9	4,122	124	87.6
Minneap., St. P. & S. St. M.	1947	4,686	8,415	13,101	4.1	29,688	1,752	837	31.4	951	43.9	2,958	116	116.9
	1946	4,946	9,087	14,033	4.5	27,774	1,744	808	31.0	868	42.2	2,902	121	119.2
Northern Pacific	1947	15,273	17,644	32,917	3.6	38,565	2,457	1,108	31.1	1,045	50.0	5,192	160	87.8
	1946	16,223	17,647	33,870	4.5	33,926	2,381	1,193	33.9	956	38.8	4,954	148	78.5
Central Western Region:														
Alton*	1947	878	4,886	5,764	1.9	38,297	2,114	1,010	31.5	892	41.0	6,006	136	72.7
	1946	2,021	6,256	8,277	.9	34,377	1,571	742	31.3	668	30.5	6,102	142	88.7
Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F.)	1947	35,309	39,813	75,122	4.8	44,732	2,296	936	26.8	1,096	61.0	6,479	115	111.1
	1946	38,940	38,701	77,641	4.4	42,696	2,279	946	27.3	1,042	56.3	6,225	123	101.9
Chi. Burl. & Quincy	1947	15,948	27,837	43,785	2.8	43,610	2,650	1,221	32.7	1,290	62.0	6,368	111	94.3
	1946	16,412	29,727	46,139	2.9	38,792	2,468	1,139	32.3	1,164	56.4	5,990	119	96.6
Chi. Rock I. & Pac.*	1947	8,676	27,327	36,003	2.6	35,530	2,090	922	29.2	1,111	57.5	5,068	114	112.0
	1946	11,241	27,651	38,892	4.4	31,922	1,953	848	28.6	923	49.4	4,658	132	102.3
Denver & R. G. Wn.*	1947	6,415	5,945	12,360	4.1	33,531	2,096	1,071	34.9	987	38.6	5,204	183	74.2
	1946	7,637	5,970	13,607	5.8	29,371	1,920	948	31.7	758	31.6	4,341	191	83.4
Southern Pacific Company	1947	21,878	40,952	62,830	2.8	39,885	2,586	1,119	28.0	1,145	57.9	9,410	113	99.8
	1946	22,434	39,058	61,492	3.3	37,466	2,577	1,111	27.2	1,076	54.7	8,297	115	94.0
Union Pacific	1947	23,830	42,822	66,652	2.3	46,195	2,487	1,112	32.0	1,409	66.6	9,314	138	110.6
	1946	24,273	32,492	56,765	4.3	44,282	2,334	994	28.2	1,395	73.7	7,970	137	100.0
Southwestern Region:														
Mo.-Kans.-Texas Lines	1947	1,224	8,536	9,760	.9	34,147	1,782	789	29.1	1,368	71.1	4,100	93	109.7
	1946	1,693	6,942	8,635	.1	31,388	1,628	736	28.4	1,492	74.6	3,859	97	111.4
Missouri Pacific*	1947	14,624	26,189	40,813	1.9	38,853	2,186	991	30.8	1,203	58.7	7,070	121	113.8
	1946	15,089	25,076	40,165	1.6	37,256	2,239	978	29.7	1,085	56.7	6,368	122	105.6
Texas & Pacific	1947	1,010	7,037	8,047	2.3	43,194	2,184	874	27.0	1,378	79.0	5,860	98	87.6
	1946	1,290	5,855	7,145	2.0	39,747	2,055	823	25.8	1,313	75.0	4,947	103	75.9
St. Louis-San Francisco	1947	4,629	15,544	20,173	1.7	31,692	1,584	727	30.5	1,174	55.5	4,925	140	104.5
	1946	7,288	13,656	20,944	1.9	29,380	1,511	689	30.3	1,086	53.5	4,804	150	105.8
St. Louis-San Fran. & Texas	1947	...	260	260	3.8	24,926	1,259	513	28.1	1,816	97.4	3,771	122	105.5
	1946		300	300	2.7	24,218	1,143	470	26.3	1,739	97.6	3,300	126	126.2
St. Louis Southw. Lines*	1947	1,057	5,494	6,551	2.1	47,914	2,364	1,057	26.0	1,931	94.2	7,648	65	109.1
	1946	1,294	4,888	6,182	2.4	40,968	2,144	958	25.2	1,769	88.7	6,568	92	85.1
Texas & New Orleans	1947	2,909	16,439	19,348	2.2	33,172	1,695	770	28.3	1,295	60.3	5,614	94	140.3
	1946	3,958	16,000	19,958	4.2	32,180	1,751	783	27.9	1,152	54.9	5,085	96	112.1

* Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.



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STROMBERG-CARLSON

NATURAL-VOICE SOUND SYSTEMS

General News

M. P. Creates Tour Department

In a move to attract a larger volume of organized travel to the cities and resort areas of the West and Southwest, the Missouri Pacific has announced the organization of a new convention and tour department. The new department will not operate tours, it was stated, but will maintain close contacts with tour travel agencies and convention committees and will publicize M. P. territory.

Discussing the new service, P. J. Neff, president of the M. P., declared that "with shorter work weeks, longer vacation periods and higher wages prevailing generally in business and industry, more and more people are finding the time and means for holiday travel and for attendance at business, fraternal and other conventions." The appointment of J. F. Rector, director of publicity and advertising, as director of the department was announced in the *Railway Age* of April 5.

February Truck Traffic

Motor carriers reporting to the American Trucking Associations transported in February 1,704,749 tons of freight, a decrease of 5.9 per cent under the 1,812,556 tons transported in January, but an increase of 22.9 per cent over the February, 1946, total of 1,387,157 tons. The A.T.A. index figure, based on the 1938-40 average, was 200 for February, as compared with 196.3 for the previous month.

The February figures, according to the A.T.A., are based on comparable reports from 227 carriers in 38 states. Carriers in the Eastern district reported a tonnage decrease of 7.3 per cent below January, but an increase of 25.5 per cent over February, 1946; carriers in the Southern region reported a decrease of 4.7 per cent below January, but an increase of 12.2 per cent over February, 1946, while carriers in the Western district reported a decrease of 4.2 per cent below January, but an increase of 22.2 per cent over February, 1946.

Katy Booklet to Stockholders Contains Data on Officers

The Missouri-Kansas-Texas, as a forward step in public relations, has issued to all its stockholders pamphlets which contain biographical sketches of the road's corporate officers, its directors and 40 staff officers. Each sketch gives the officer's address, age and experience with the Katy. In the case of directors, business connections and directorates with other firms, and the dates of election to the M.K.T. board are given.

In a statement directed to the stockholders, R. J. Morfa, chairman of the board, said: "Continuing our policy of keeping you informed about your property, this pamphlet has been prepared to give you some idea of the personnel of both the board of directors and, also, those men who are managing the M.K.T." The pamphlet, he pointed out, discloses that the majority of the directors are located in the Southwest and that all of the officers have long years of service.

Santa Fe Furnishes Plane for Delayed Passengers

To speed to their destinations a number of the pasengers delayed by the derailment of the "Super Chief" near Otero, N. M., on April 9, the Atchison, Topeka & Santa Fe chartered a commercial "Constellation" plane which departed at the road's expense the following day from La Junta, Colo., with approximately 50 passengers aboard. This service enabled persons in urgent need of reaching their destinations to arrive only a few hours behind the scheduled train time, the road stated. A special train carrying the remaining passengers of the derailed train arrived in Chicago at 9 a. m. on April 11.

The "Super Chief" had departed from Los Angeles, Cal., at 8 p. m. on April 8, and was due to arrive in Chicago at 1:45 p. m. on April 10. The derailment occurred at 7:45 p. m. on the second day of the trip. Following a preliminary investigation, Santa Fe officers said the accident was caused by the housing of the Diesel locomotive traction unit which fell to the track. Approximately 25 persons were injured, two seriously.

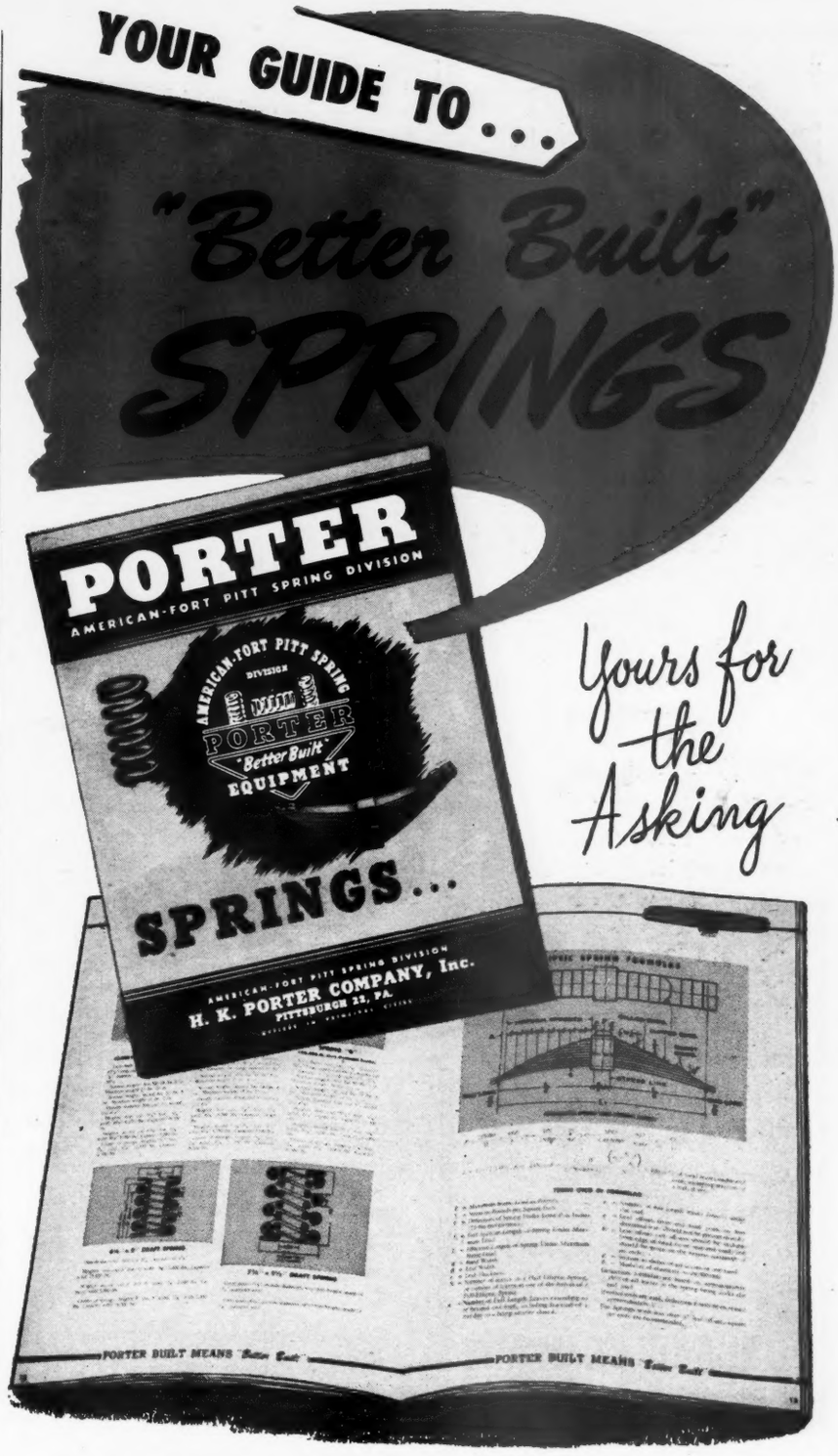
Proposes Public Authority for Chicago Terminal

The creation of a public terminal authority, empowered by law to plan, finance and construct a unified passenger terminal on Chicago's south side, appears to be the only solution to the complex problems presented by the terminal proposal, according to Joshua D'Esposito, who represents the mayor on the railroad engineers' committee studying the project. Speaking before a luncheon meeting of the Illinois section of the American Society of Civil Engineers, Mr. D'Esposito, who was in charge of the construction of the Chicago Union Station, pointed out that the necessary relocation of the various freight facilities would be far more difficult than those presented by the passenger terminal itself.

He told the group that 14 separate plans for the terminal had been considered by the committee, and that of these, three are now under further study. Under these plans, three possible locations have been selected for the new passenger terminal. These are: (1) the area immediately south of Congress street and east of the Chicago river; (2) at the intersection of Polk and Dearborn streets; and (3) in the area east of Michigan avenue and south of Twelfth street, the general site now occupied by the Illinois Central station. He enumerated many complexities which would affect any of the proposals, such as the construction of subways, superhighways, streets and bridges, as well as the relocation of freight terminals.

"The railroads can no longer work in the traditional way in the building of big passenger terminals," Mr. D'Esposito said. "In the past, in addition to putting up a terminal, they had to assume the tremendous costs involved in relocating streets, sidewalks and other public facilities. They cannot afford to do this any longer."

Recalling that it took from 1906 to 1914 to get the four railroads interested in the Union Station to agree on their terminal



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plan, he expressed "deep doubts" of the ability of the 16 railroads involved in the present project to agree, pointing out that nearly five times the land area is involved. Further, he said that some of these roads are in receivership or have just emerged from it and are unable financially to go along with a major terminal plan.

February Accident Statistics

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for February and for this year's first two months. The compilation, which is subject to revision, follows:

Item	Month of February		2 months ended with February	
	1947	1946	1947	1946
Number of train accidents*	1,430	1,327	2,967	2,758
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	72	97	148	200
Injured	59	74	149	134
Passengers on trains:				
(a) In train accidents*				
Killed	16	..	26	3
Injured	253	66	354	241
(b) In train-service accidents				
Killed	2	8	3	13
Injured	217	177	416	423
Travelers not on trains:				
Killed		1	1	5
Injured	89	85	177	205
Employees on duty:				
Killed	59	65	114	123
Injured	3,110	3,355	6,374	7,273
All other nontrespassers:**				
Killed	217	168	407	386
Injured	580	667	1,298	1,455
Total—All classes of persons:				
Killed	366	339	699	730
Injured	4,308	4,424	8,768	9,731

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers*, were as follows:

Persons:				
Killed	199	166	380	380
Injured	446	447	919	973

March Employment

Railroad employment increased 0.11 per cent—from 1,324,837 to 1,326,337—during the one-month period from mid-February to mid-March, but the mid-March total was 2.97 per cent below that of March, 1946, according to the preliminary summary prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-39 average, was 133.2 for March, as compared with 133.1 for the previous month and 137.5 for March, 1946.

March employment was above that of the corresponding 1946 month in only two groups, the increases being 0.11 per cent in the executives, officials and staff assistants group and 0.69 per cent in the transportation (train and engine service) category. The decreases ranged from 1.87 per cent in the professional, clerical and general group to 6.58 per cent in the maintenance of way and structures category.

As compared with the previous month, there were increases in employment in six groups, ranging from 0.06 per cent in professional, clerical and general to 0.43 per cent in maintenance of way and structures. The decreases were 0.13 per cent in maintenance of equipment and stores and 2.36 per cent in transportation (yardmasters, switchtenders and hostlers).

Representation of Employees

The Brotherhood of Railroad Trainmen has supplanted the Order of Railway Conductors as Railway Labor Act representative of road conductors employed by the Maine Central, according to results of a recent election which has been certified by the National Mediation Board. The vote was 45 to 44.

At the time the ballots were counted, a representative of the O. of R. C. contended that the ballot of one employee was void on the grounds that the mail ballot used by the voter got into the hands of someone else, thereby destroying its secrecy. The N.M.B. found no merit in that contention since the report of the mediator as well as the statement of the voter showed that the ballot had not been tampered with after mailing and that the signature on the mailing envelope was authentic. The ballot was declared legal and counted.

As the result of another election, Texas & Pacific technical engineers, architects, draftsmen and allied workers and subordinate officials in the maintenance-of-way and structures department, all of whom formerly were without representation, are now represented by the International Federation of Technical Engineers, Architects & Draftsmen's Unions, American Federation of Labor.

The United Transport Service Employees of America, Congress of Industrial Organizations, defeated the Joint Council of Dining Car Employees, Local 351, Hotel & Restaurant Employees International Alliance, 247 to 98, thereby replacing the latter union as the representative of Chicago, Burlington & Quincy dining car employees, according to the results of another election.

The vote involved cooks, waiters, waiters-in-charge, coach waiters, porters, cocktail lounge porters and coach cafe cooks and waiters. The N. M. B. ruled that because the road had no employees designated as "bartenders," the ballots of certain tap room stewards could not be counted in the election.

As the result of other elections which also have been certified by the N. M. B., the Patrolmen's Association, Chicago Great Western, retained its right to represent C. G. W. patrolmen by defeating the National Council, Railway Patrolmen's Unions, A. F. of L., and Chicago & North Western technical engineers, architects, draftsmen and allied workers below the rank of officials, as defined in Ex Parte No. 72 of the Interstate Commerce Commission, all of whom formerly were without representation, are now represented by the American Railway Supervisors Association.